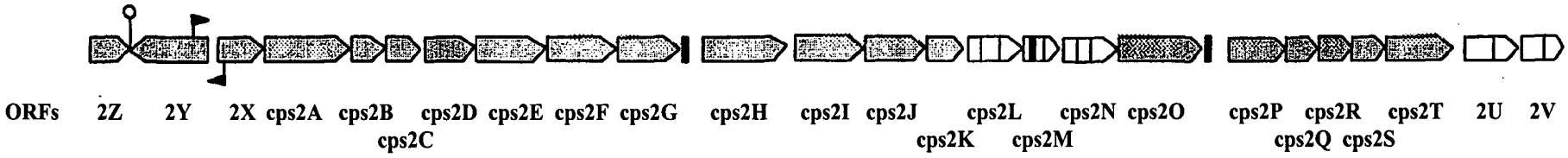

FIG. 1A

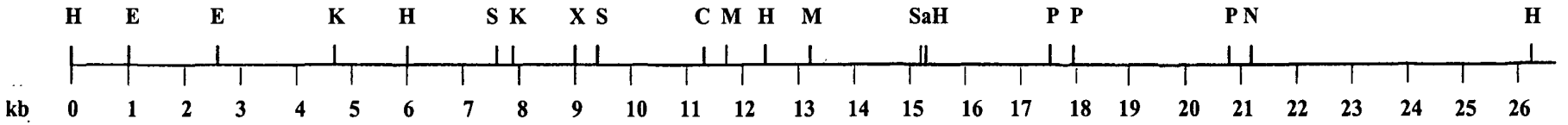

FIG. 1B

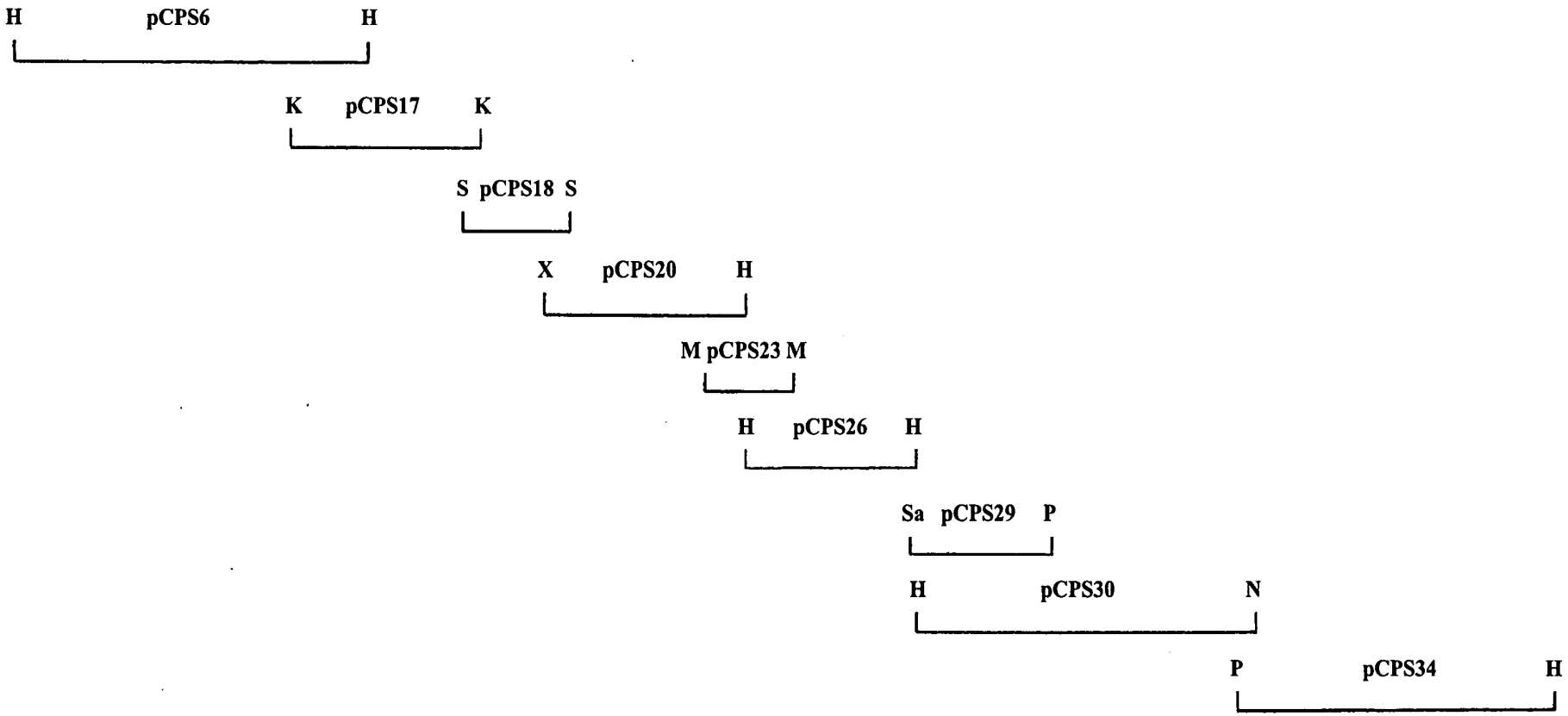
H
pCPS6
H
K
pCPS17
K
S
pCPS18
S
X
pCPS20
H
M
pCPS23
M
H
pCPS26
H
Sa
pCPS29
P
H
pCPS30
N
P
pCPS34
H

FIG. 1C

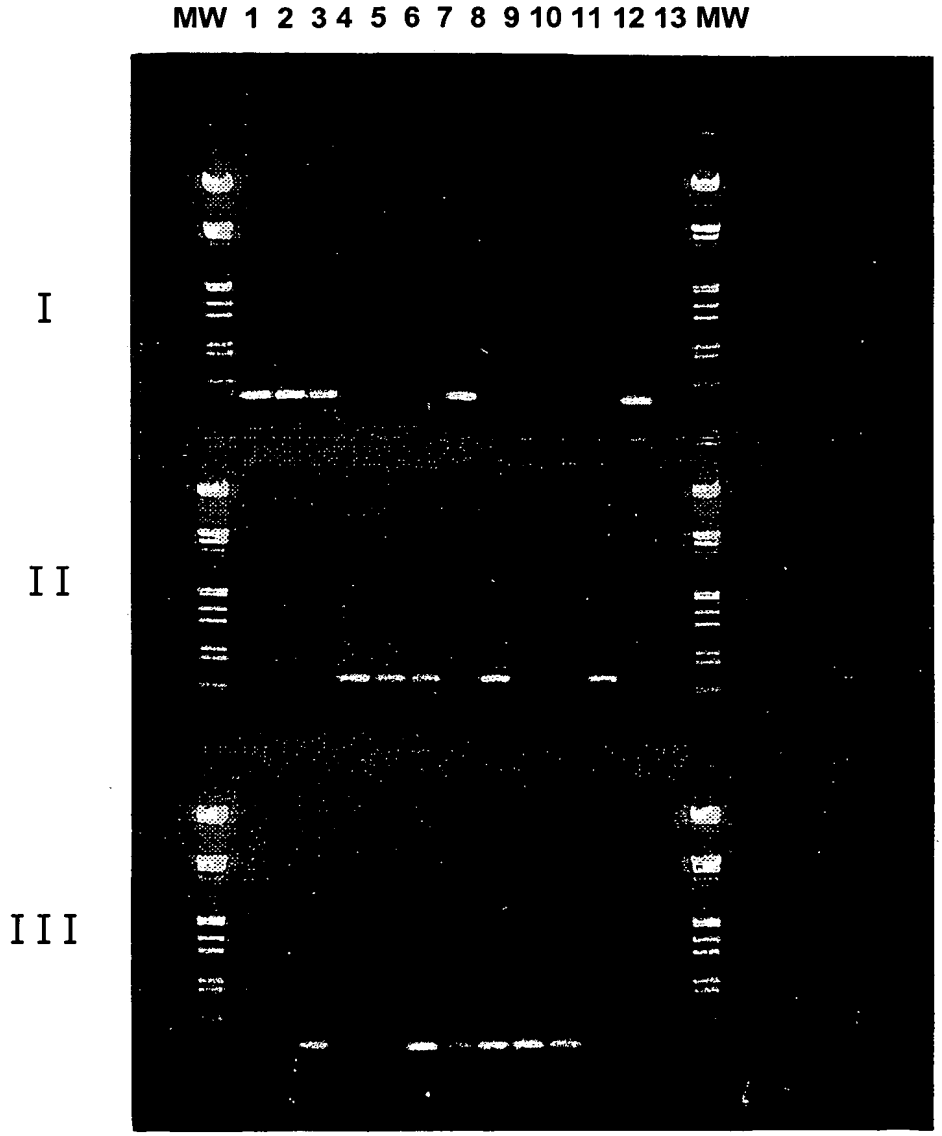

FIG. 2

AAGCTTGGAT ATTGATCACA TGATGGAGGT GATGGAAGCA TCTAAGTCTG CAGCGGGGTC
GGCGTGCCCA AGTCCGCAGG CTTATCAGGC AGCTTTTGAG GGAGCTGAGA
ACATTATCGT TGTGACGATT ACAGGTGGGC TATCGGGTAG TTTTAATGCG GCACGTGTAG
CTAGGGATAT GTATATCGAA GAGCATCCGA ATGTCAATAT CCATTTGATA
GATAGTTTGT CAGCCAGTGG GGAAATGGAT TTACTTGTAC ACCAAATCAA TCGCTTAATT
AGTGCAGGAT TAGATTTTCC ACAAGTAGTA GAAGCGATAA CTCACTATCG
GGAACACAGT AAGCTCCTCT TTGTTTTAGC GAAAGTTGAT AATCTTGTTA AGAATGGAAG
ACTGAGCAAA TTGGTAGGCA CTGTCGTTGG TCTTCTCAAT ATCCGTATGG
TTGGTGAGGC AAGTGCTGAA GGAAAATTAG AGTTGCTTCA AAAGGCGCGT GGTCATAAGA
AATCTGTGAC AGCAGCCTTT GAAGAAATGA AAAAAGCAGG CTATGATGGT
GGTCGAATTG TTATGGCCCA CCGCAACAAT GCTAAGTTCT TCCAACAATT CTCAGAGTTG
GTAAAAGCAA GTTTTCCAAC GGCTGTTATT GACGAAGTTG CAACATCAGG
TCTATGCAGT TTTTATGCTG AAGAAGGTGG ACTTTTGATG GGCTACGAAG TGAAAGCGTG
ATTCACAGAG TAATAATTTT GGGCTGTAAT TTCCGCTATA GAATAATCCC
CCTCTTCTTC TAAGTTCGAG GGGGATTGTT TGTATGAGAC TATTGGATTT CATTCATTCA
AATATCTTAC GAATTGCTCC AGTTTATCTG CAAAATCTTG TTCAAAGAAG
ATCTGTAAGA AATCAGCTTT CTGTCCGCTG AAATAATAAC ATTTTCCAAA CATGTGTTGG
ATGCTAGGAG AAAGAATCCC CTTGCTTAGC TGAAAGGTCA CGCTCCCCTT
TGGAATTCGA TACGGGATGT TTAAAGCGTA TTTCTCTAGA CAGTCTTTTA TTTTATTCCA
TTGAGCGTGA TAAATGTGAT GAAGATGCTG TGTGTTCCGC GCAAACATAC
CGTTATCAAT GTAGAGCGAG AGAGCTTTTT GCATGATAAG ATTGGTATCG TAGTCGATTA
GACTCTTATG TTTGATGAAG ATATCACGTA GCTGATTAGG AAGGCTGATT
GCACCGATTC GGAGGGCAGG AAAGAGTGTC GGTGTAAAAG ATTTTATATA GATGACGCGA
TTATCTGTAT CAAGATAGTG TAAAGGTAGG CTATGACTAG AGTCGAAATC
TGCTAAATAG TCATCCTCAA TGATGTAGAC ATCGTATTGC TTTGCTAATT TTACGATGGC
TGTTTTTGTT GCTATATCAT AGGTTGAACC GAGAGGGTTG TGCAAGCGAG
GAATTGTGTA GAAAAACTTA ATTTTTCCAG TTTGGAAGAT ACTTTCCAAT TCTTCTAGGT
CAATTCCATC TAAATTCCGT TCAATTGTTT GATAGGGGAT TCCTTGATGT
CGAATGAGCT CTATCATTCG TGAATAGGTA GGGTTCTCTA TCAAGATTTC CGTTTTTCCA
GCCAAGGTTT CCATTTGTGT GAGAATATAT AGAGCTTGTT GACTACCAGC
TGTGATAACC AGCTGGTCTT TTTTTGTATA GACATGATAG TCCATTAACA GACTTTGAAC
GGAGGAAATC AATTCTGCCA ATCCCTCTTG CTGGTGATAG TAGTTGAATA
GGTAATTTTC CCGCCCAATA AGACTTTCTT TTAGACAAAT CCGAAAATCT TCATAGGTAA
TTCTTGAAAG TCTGTAGGAT TGAGCTCTAC AGGTATGGTC TTGGAAATCT
CTATCCTCTA AGATATAATA ACCGCTTTTT TCGACAGCGT AGATCTTATT TTGGTATTTT
AATTCCAACA TAGCCTTTTG GACAGTGTCT TTGCTACAAT GATATTGCTC
GCGGAGTTGA CGGATAGAAG GTAATTTCTC TCCACGTTTG AATCGATGTT CCTCTATTCC
AGTCAAAATA TCTTGGATGA TAACTTGATA TTTTTTCATC TAGGTCCCCT
TTTTTATAGA CTATGTTACT AGCTAGTATA TAGAAAAAAT TGAAGAAAGA CAATATATGA
ATAATGGGGT TGAGGTTCAG GAATTAAGCT ACTCTATGGT ATAATTAAGT
GATGAAAATA ATTATACCTA ATGCAAAAGA AGTAAATACA AATCTAGAGA ATGCCTCGTT
TTATCTCCTG TCTGATCGAA GCAAGCCGGT GCTGGATGCC ATAAGTCAAT
TTGATGTAAA AAAGATGGCT GCCTTTTATA AATTGAATGA AGCAAAGGCT GAGTTAGAAG
CTGACCGTTG GTATCGAATC AGGACAGGTC AAGCAAAAAC CTATCCAGCC
TGGCAGTTAT ATGATGGTCT CATGTATCGT TATATGGATA GGCGAGGTAT AGATTCGAAA
GAAGAAAATT ATTTACGTGA CCACGTTCGT GTAGCGACAG CCTTATACGG
ATTGATTCAT CCTTTTGAAT TCATTTCACC TCACCGCTTA GATTTTCAAG GGAGCTTAAA
GATAGGCAAT CAGTCTTTGA AACAGTACTG GCGACCGTAT TATGACCAAG
AAGTTGGTGA TGATGAACTG ATTCTCTCAC TGGCTTCGTC AGAATTTGAG CAGGTGTTTT
CTCCCCAGAT TCAGAAAAGA TTAGTTAAAA TTCTTTTCAT GGAAGAAAAA
GCAGGTCAGC TAAAAGTTCA CTCGACTATA TCAAAAAAAG GCAGAGGAAG ATTGCTGTCC
TGGTTGGCTA AGAACAATAT TCAGGAATTA TCGGACATTC AAGATTTTAA
GGTGGATGGC TTTGAATATT GTACTTCCGA ATCAACGGCA AACCAACTTA CCTTCATACG
ATCAATAAAA ATGTGAAATT ATGAAAAAGA TAACGTTTTC CAGCGCTAAA
AAGGGTAGAA AAATATTAAT TTCTATGATA TAATGGATGC GTTATAGGTA AAAGTCTAGG
AAGGTTGTTT ATGAAAAAGA GAAGCGGACG AAGTAAGTCG TCCAAGTTCA
AATTGGTAAA TTTTGCGCTT TTGGGACTTT ATTCCATTAC TCTATGTTTG TTCTTAGTGA
CCATGTATCG CTATAACATC CTAGATTTCC GGTATTTAAA CTATATTGTG
ACGCTTTTGC TAGTAGGAGT GGCAGTATTG GCTGGATTAT TGATGTGGCG TAAGAAAGCG
CGCATATTTA CAGCGCTCTT ACTTGTTTTT TCACTGGTCA TCACGTCTGT

DNA Serotype 2

FIG. 3A

TGGGATCTAT GGAATGCAAG AAGTTGTAAA ATTTTCAACA CGACTAAATT CAAATTCGAC
ATTTTCAGAA TATGAAATGA GTATCCTTGT CCCAGCAAAT AGTGATATTA
CGGACGTTCG TCAGCTTACT AGTATCCTTG CTCCAGCCGA ATACGACCAA GATAACATCA
CCGCTTTATT GGATGACATA TCCAAAATGG AATCTACTCA ACTAGCAACT
AGCCCCGGGA CTTCTTACCT GACAGCATAT CAATCTATGT TGAATGGCGA GAGTCAAGCG
ATGGTGTTCA ACGGAGTTTT TACCAATATT TTAGAAAATG AAGATCCAGG
CTTTTCTTCA AAAGTGAAAA AAATATATAG TTTCAAAGTG ACTCAGACTG TTGAAACAGC
TACTAAGCAG GTGAGTGGAG ATAGCTTTAA TATCTATATT AGTGGTATTG
ATGCTTATGG ACCGATTTCT ACGGTCTCTC GTTCAGATGT CAATATCATT ATGACTGTCA
ATCGTGCGAC ACATAAGATT TTATTGACAA CTACTCCACG AGATTCATAC
GTTGCTTTCG CAGATGGCGG GCAAAATCAA TACGATAAAC TAACACATGC TGGTATTTAC
GGTGTCAATG CTTCTGTGCA CACCTTAGAA AATTTTTATG GGATTGACAT
TAGCAATTAT GTGCGGTTGA ACTTCATTTC CTTCCTTCAA TTAATCGACT TGGTGGGTGG
AATTGATGTA TATAACGATC AAGAATTTAC AAGTTTACAT GGGAATTATC
ATTTCCCTGT TGGACAAGTT CATTTAAACT CAGACCAAGC ATTAGGCTTC GTTCGAGAGC
GCTACTCTTT AACAGGGGGT GACAATGACC GTGGTAAAAA CCAGGAAAAA
GTGATTGCTG CCTTGATTAA AAAGATGAGT ACGCCAGAGA ATCTAAAAAA TTACCAGGCA
ATCCTATCTG GATTGGAAGG CTCAATTCAA ACGGATTTGA GCTTAGAAAC
GATTATGAGT TTAGTGAATA CCCAACTAGA ATCAGGAACA CAATTTACAG TAGAGTCACA
AGCATTGACA GGAACAGGAC GCTCAGACTT ATCTTCTTAT GCGATGCCTG
GATCACAACT TTATATGATG GAAATTAACC AAGATAGTCT GGAGCAATCA AAGGCAGCGA
TTCAGTCCGT ACTTGTTGAA AAATAAAGAT TTTAGGAGAA AATATGAACA
ATCAAGAAGT AAATGCAATC GAAATCGATG TTTTATTCTT ACTAAAAACA ATTTGGAGAA
AGAAATTTTT AATTCTCTTA ACTGCAGTGT TGACTGCGGG GTTGGCATTT
GTCTACAGTA GTTTTTTAGT GACACCTCAA TATGACTCCA CTACCCGTAT CTATGTAGTG
AGTCAAAATG TTGAAGCCGG TGCGGGCTTG ACTAACCAAG AGTTACAAGC
GGGTACCTAT TTGGCAAAAG ACTATCGGGA AATTATCCTA TCACAAGATG TATTGACACA
AGTAGCAACG GAATTGAATC TGAAAGAGAG TTTGAAAGAA AAAATATCAG
TTTCTATTCC TGTTGATACT CGTATCGTTT CTATTTCTGT GCGTGATGCG GATCCAAATG
AAGCGGCACG TATTGCAAAT AGCCTTCGCA CCTTTGCAGT GCAAAAGGTT
GTTGAGGTCA CCAAGGTAAG CGATGTGACG ACACTTGAAG AAGCAGTCCC AGCGGAAGAA
CCAACCACTC CAAATACAAA ACGAAATATC TTGCTTGGTT TATTAGCTGG
AGGTATCTTG GCAACAGGTC TTGTACTGGT TATGGAGGTT TTGGATGACC GTGTAAAACG
TCCTCAGGAC ATCGAAGAGG TAATGGGATT GACATTGCTA GGTATAGTAC
CAGATTCGAA GAAATTAAAA TAGGAGAACA ATATGGCGAT GTTAGAAATT GCACGTACAA
AAAGAGAGGG AGTAAATAAA ACCGAGGAGT ATTTCAATGC TATCCGTACC
AATATTCAGC TTAGCGGAGC AGATATTAAG GTTGTTGGTA TTACCTCTGT TAAATCGAAT
GAAGGTAAGA GTACAACTGC GGCTAGTCTC GCTATTGCCT ATGCTCGTTC
AGGTTATAAG ACCGTCTTGG TGGATGCAGA TATCCGAAAT TCAGTCATGC CTGGTTTCTT
CAAGCCAATT ACAAAGATTA CAGGTTTGAC GGATTACCTA GCAGGGACAA
CAGACTTGTC TCAAGGATTA TGCGATACAG ATATTCCAAA CTTGACCGTA ATTGAGTCAG
GAAAGGTTTC TCCCAACCCT ACTGCCCTTT TACAAAGTAA GAATTTTGAA
AATCTACTTG CGACTCTTCG TCGCTATTAT GATTATGTTA TCGTTGACTG TCCACCATTA
GGACTGGTAA TTGATGCAGC TATCATTGCA CAAAAATGTG ATGCGATGGT
TGCAGTAGTA GAAGCAGGCA ATGTTAAGTG CTCATCTTTG AAAAAAGTAA AAGAGCAGTT
GGAACAAACA GGCACACCGT TCTTAGGCGT TATCTTGAAC AAATATGATA
TTGCCACTGA GAAGTATAGT GAATACGGAA ATTACGGCAA AAAAGCCTAA TTTCTCAGAT
AACATAAGTT TGATAAGTAG GTATTAATAT GATTGATATC CATTCGCATA
TCATATTTGG TGTGGATGAC GGTCCCAAAA CTATTGAAGA GAGCCTGAGT TTGATAAGCG
AAGCTTATCG TCAAGGTGTT CGCTATATCG TAGCGACATC TCATAGACGA
AAAGGGATGT TTGAAACACC AGAAAAAATC ATCATGATTA ACTTTCTTCA ACTTAAAGAG
GCAGTAGCAG AAGTTTATCC TGAAATACGA TTGTGCTATG GTGCTGAATT
GTATTATAGT AAAGATATCT TAAGCAAACT TGAAAAAAAG AAAGTACCAA CACTTAATGG
CTCGTGCTAT ATTCTCTTGG AGTTCAGTAC GGATACTCCT TGGAAAGAGA
TTCAAGAAGC AGTGAACGAA ATGACGCTAC TTGGGCTAAC TCCCGTACTT GCCCATATAG
AGCGTTATGA TGCTCTGGCA TTTCAGTCAG AGAGAGTAGA AAAGCTAATT
GACAAGGGAT GCTACACTCA GGTAAATAGT AACCATGTGT TGAAGCCTGC TTTAATTGGC
GAACGAGCAA AAGAATTTAA AAAACGTACT CGATATTTTT TAGAGCAGGA
TTTAGTACAT TGTGTTGCTA GCGATATGCA TAATTTATAT AGTAGACCTC CGTTTATGAG
GGAGGCGTAT CAGCTTGTAA AAAAAGAGTA TGGTGAGGAT AGAGCGAAGG

DNA Serotype 2

FIG. 3B

```
CTTTGTTCAA GAAAAATCCT TTGTTGATAT TGAAAAATCA AGTACAGTAA CCTCATAGAA
ATAGTGGAGG AGCTATGAAT ATTGAAATAG GATATCGCCA AACGAAATTG
GCATTGTTTG ATATGATAGC AGTTACGATT TCTGCAATCT TAACAAGTCA TATACCAAAT
GCTGATTTAA ATCGTTCTGG AATTTTTATC ATAATGATGG TTCATTATTT
TGCATTTTTT ATATCTCGTA TGCCGGTTGA ATTTGAGTAT AGAGGTAATC TGATAGAGTT
TGAAAAAACA TTTAACTATA GTATAATATT TGTAATTTTT CTTATGGCAG
TTTCATTTAT GTTAGAGAAT AATTTCGCAC TTTCAAGACG TGGTGCCGTG TATTTCACAT
TAATAAACTT CGTTTTGGTA TACCTATTTA ACGTAATTAT TAAGCAGTTT
AAGGATAGCT TTCTATTTTC GACAACCTAT CAAAAAAAGA CGATTCTAAT TACAACGGCT
GAACTATGGG AAAATATGCA AGTTTTATTT GAATCAGATA TACTATTTCA
AAAAAATCTT GTTGCATTGG TAATTTTAGG TACAGAAATA GATAAAATTA ATTTACCATT
ACCGCTCTAT TATTCTGTTG AAGAAGCTAT AGGGTTTTCA ACAAGGGAAG
TGGTCGACTA CGTCTTTATA AATTTACCAA GTGAATATTT TGACTTAAAG CAATTAGTTT
CAGACTTTGA GTTGTTAGGT ATTGATGTAG GCGTTGATAT TAATTCATTC
GGTTTTACTG TGTTGAAGAA TAAAAAAATC CAAATGCTAG GTGACCATAG CATCGTCACT
TTTTCCACAA ATTTTTATAA GCCTAGTCAC ATCTGGATGA AACGACTTTT
AGATATACTT GGAGCAGTAG TCGGGTTAAT TATTAGTGGT ATAGTTTCTA TTTTGTTAAT
TCCAATTATT CGTAGAGATG GTGGGCCAGC CATTTTTGCT CAGAAACGAG
TTGGACAGAA TGGACGCATA TTTACATTCT ACAAGTTTCG TTCGATGTTT GTTGATGCCG
AGGTACGTAA GAAAGAATTA ATGGCTCAAA ACCAGATGCA AGGTGGGATG
TTCAAAATGG ACAACGATCC TAGAATTACT CCAATTGGAC ACTTCATACG AAAAACAAGT
TTAGATGAGT TACCACAATT TTATAATGTT CTAATTGGAG ATATGAGTCT
AGTCGGTACC CGTCCGCCTA CAGTTGATGA ATTTGAAAAA TATACTCCTA GTCAAAAGAG
AAGATTGAGT TTTAAACCAG GGATTACAGG TCTTTGGCAA GTGAGCGGAA
GAAGTGATAT CACAGATTTT AATGAAGTCG TTAGGCTGGA CCTAACATAC ATTGATAATT
GGACCATCTG GTCAGACATT AAGATTTTAT TGAAGACAGT GAAAGTTGTA
TTGTTGAGAG AGGGAGGTCA GTAAGACTCC TTTAAAACAA AGAATAGTAG TAGGGGATAT
GAGAACAGTT TATATTATTG GTTCAAAAGG AATACCAGCA AAGTATGGTG
GTTTCGAGAC TTTCGTAGAA AAATTAACTG AGTATCAGAA AGATAAATCA ATTAATTATT
TTGTTGCATG TACAAGAGAA AATTCAGCAA AATCAGATAT TACAGGAGAA
GTTTTTGAAC ATAATGGAGC AACATGTTTT AATATTGATG TGCCAAATAT TGGTTCAGCA
AAAGCCATTC TTTATGATAT TATGGCTCTC AAGAAATCTA TTGAAATTGC
CAAAGATAGA AATGATACCT CTCCAATTTT CTACATTCTT GCTTGTCGGA TTGGTCCTTT
CATTTATCTT TTTAAGAAGC AGATTGAATC AATTGGAGGT CAACTTTTCG
TAAACCCAGA CGGTCATGAA TGGCTACGTG AAAAGTGGAG TTATCCCGTC CGACAGTATT
GGAAATTTTC TGAGAGTTTG ATGTTAAAAT ACGCTGATTT ACTAATTTGT
GATAGCAAAA ATATTGAAAA ATATATTCAT GAAGATTATC GAAAATATGC TCCTGAAACA
TCTTATATTG CTTATGGAAC AGACTTAGAT AAATCACGCC TTTCTCCGAC
AGATAGTGTA GTACGTGAGT GGTATAAGGA GAAGGAAATT TCAGAAAATG ATTACTATTT
GGTTGTTGGA CGATTTGTGC CTGAAAATAA CTATGAAGTA ATGATTCGAG
AGTTTATGAA ATCATATTCA AGAAAAGATT TTGTTTTGAT AACGAATGTA GAGCATAATT
CCTTTTATGA GAAATTGAAA AAAGAAACAG GGTTCGATAA AGATAAGCGT
ATAAAGTTTG TTGGAACAGT CTATAATCAG GAGCTGTTAA AATATATTCG TGAAAATGCA
TTTGCTTATT TTCATGGTCA CGAGGTTGGA GGAACGAACC CATCTTTACT
TGAAGCACTT TCTTCTACTA AACTAAATCT TCTTCTAGAT GTGGGCTTTA ATAGAGAAGT
AGGGGAAGAA GGAGCGAAAT ACTGGAATAA AGATAATCTT CACAGAGTTA
TTGACAGTTG TGAGCAATTA TCACAAGAAC AAATTAATGA TATGGATAGT TTATCAACAA
AACAAGTCAA AGAAAGATTT TCTTGGGATT TTATTGTTGA TGAGTATGAG
AAGTTGTTTA AAGGATAAGT TATGAAAAAG ATTCTATATC TCCATGCTGG AGCAGAATTA
TATGGGGCAG ATAAGGTTCT CTTGGAACTT ATAAAAGGCT TAGATAAGAA
TGAATTTGAA GCGCATGTTA TCCTACCTAA TGATGGAGTC CTAGTGCCAG CATTAAGAGA
AGTTGGTGCG CAAGTTGAAG TTATTAACTA TCCAATTCTA CGTAGGAAAT
ATTTTAATCC AAAAGGGATT TTTGACTACT TCATATCATA TCATCACTAT TCTAAACAGA
TTGCTCAATA TGCCATAGAA AATAAGGTTG ACATAATTCA CAATAATACT
ACCGCTGTCT TAGAAGGCAT TTATCTGAAG CGAAAACTCA AATTACCTTT GTTGTGGCAT
GTTCATGAGA TTATTGTCAA ACCTAAATTC ATCTCTGATT CGATCAATTT
TTTAATGGGG CGTTTTGCTG ATAAGATTGT GACAGTTTCA CAGGCTGTGG CAAACCATAT
AAAACAATCA CCTCATATCA AAGATGACCA AATCAGTGTA ATCTACAATG
GGGTAGATAA TAAAGTGTTT TATCAGTCCG ATGCTCGGTC TGTTCGAGAA AGATTTGACA
TTGACGAAGA GGCTCTTGTC ATTGGTATGG TCGGTCGAGT CAATGCGTGG
```

DNA Serotype 2

FIG. 3C

AAAGGACAAG GAGATTTTTT AGAAGCAGTT GCTCCTATAC TCGAACAGAA TCCAAAAGCT
ATCGCCTTTA TAGCAGGAAG TGCTTTTGAA GGAGAAGAGT GGCGAGTAGT
AGAATTAGAA AAGAAGATTT CTCAATTAAA GGTCTCTTCT CAAGTCAGAC GAATGGATTA
TTATGCAAAT ACCACTGAAT TATATAATAT GTTTGATATT TTTGTACTTC
CAAGTACTAA TCCAGACCCT CTACCAACGG TTGTACTAAA AGCAATGGCA TGCGGTAAAC
CTGTTGTCGG TTACCGACAT GGTGGTGTTT GTGAGATGGT GAAAGAAGGT
GTTAACGGTT TCTTAGTCAC TCCGAACTCA CCGTTAAATT TATCAAAAGT AATTCTTCAG
TTATCGGAAA ATATAAATCT CAGAAAAAAA ATTGGTAATA ATTCTATAGA
ACGTCAAAAA GAACATTTTT CGTTAAAAAG CTATGTAAAA AATTTTTCGA AAGTCTACAC
CTCCCTCAAA GTATACTGAT TGGCTGAAGT GAATGCTTTA GTATAGCGAT
TTATCGTATT CTCATTCGAT AAAACAAATG TTCAGAAACA GTTATAAGTT ATTTCTAAAG
GGCACCTCTA TAAACTCCCA AAATTGCGAA TTTGGAGTTA CGAAAGCCTT
GTTAAATCAA CATTTTAAAT TTTAGAAAAT TAGTTTTTAG AGCTCCCCTA AAATAGAAGA
TAACAGAAGG GAGCCTTCAA AAACTTCATT TTTAATTGGA TTGTAGAAAA
ACTGTTAAAT CAATATTTAG ATTTTTAGGA GTTCAGTTTT TGGGGGGAGA GCTTAATAAT
CTATGCACTA TATTTCGAAA AATATATGGT GTAAAATCAG AACTGATGGT
CGTGGCAAAA AAGAGAATGA GGAATTTATG AAAATTATTT CTTTTACAAT GGTTAATAAC
GAAAGTGAGA TAATAGAGTC ATTTATACGG TATAATTATA ACTTTATTGA
CGAGATGGTC ATTATTGATA ATGGTTGTAC AGATAACACG ATGCAAATTA TTTTTAATTT
GATTAAAGAG GGATATAAAA TATCCGTATA TGATGAGTCT TTAGAGGCAT
ATAATCAGTA TCGACTTGAT AATAAATATC TAACGAAAAT AATTGCTGAA AAAAATCCAG
ATTTGATAAT ACCTTTGGAT GCGGATGAAT TTTTAACAGC CGATTCAAAT
CCACGGAAAC TTTTGGAACA ACTGGACTTA GAAAAGATAC ATTATGTGAA TTGGCAATGG
TTTGTTATGA CTAAAAAAGA TGATATTAAT GATTCGTTTA TACCACGTAG
AATGCAATAT TGTTTTGAAA AACCTGTTTG GCATCATTCT GATGGTAAAC CAGTTACTAA
ATGTATAATT TCCGCTAAGT ATTACAAAAA AATGAATTTA AAGCTATCGA
TGGGACATCA CACTGTTTTT GGTAACCCAA ATGTAAGGAT AGAACATCAT AATGATTTGA
AATTTGCACA TTATCGAGCT ATTAGCCAAG AGCAATTAAT TTATAAAACA
ATTTGTTACA CTATTCGCGA TATTGCTACT ATGGAGAACA ATATCGAAAC AGCTCAAAGA
ACAAATCAGA TGGCGCTCAT TGAATCTGGC GTGGATATGT GGGAAACGGC
GAGAGAAGCC TCTTATTCAG GTTATGATTG TAATGTTATA CATGCACCAA TTGATTTAAG
TTTTTGTAAA GAAAATATTG TAATAAAATA TAACGAACTA TCCAGAGAAA
CAGTAGCAGA ACGCGTGATG AAAACGGGAA GAGAAATGGC TGTTCGTGCA TATAATGTGG
AGCGAAAACA AAAAGAAAAG AAATTTCTAA AACCTATTAT ATTTGTATTA
GATGGGTTAA AAGGAGATGA GTATATTCAT CCCAATCCAT CAAATCATTT GACGATCTTA
ACTGAAATGT ATAACGTCAG AGGCTTACTT ACCGATAATC ACCAAATTAA
ATTTCTCAAA GTTAATTATA GATTAATTAT AACTCCAGAT TTTGCTAAGT TTTTACCGCA
TGAATTTATT GTTGTACCAG ATACCTTGGA TATAGAGCAA GTTAAAAGCC
AGTATGTTGG TACAGGTGTA GACTTGTCAA AGATTATTTC TTTAAAAGAG TATCGAAAAG
AGATAGGCTT TATTGGTAAT TTGTATGCGC TTTTAGGATT TGTTCCGAAT
ATGCTCAATA GAATTTATCT ATATATTCAG AGAAACGGTA TTGCAAACAC TATTATAAAA
ATCAAGTCGA GATTGTGAGA GTTGTTTACT TTTATTTGTA ATTTTAAAAG
TAATGCAGGC AGATAGGAGA AAAACGTTTG GAAAAATGAG AATAAGAATT AATAATTTGT
TTTTTGTTGC CATAGCGTTT ATGGGCATAA TTATTAGTAA TTCGCAAGTT
GTTCTAGCGA TAGGCAAAGC TTCTGTGATT CAGTATCTAT CTTATTTAGT TTTGATTTTA
TGTATAGTTA ATGATTTATT AAAAAATAAC AAACATATTG TAGTTTATAA
ATTAGGGTAT TTGTTTCTTA TTATATTTTT ATTTACTATC GGAATATGTC AGCAAATTCT
TCCTATAACA ACTAAAATAT ATTTATCAAT TTCAATGATG ATTATTTCAG
TTTTAGCAAC GTTGCCAATA AGTTTGATAA AAGATATTGA TGATTTTAGA CGGATTTCAA
ATCATTTGTT ATTCGCTCTT TTTATAACTT CGATATTAGG AATAAAGATG
GGGGCAACGA TGTTCACGGG GGCAGTAGAA GGTATCGGTT TTAGTCAGGG TTTTAATGGA
GGATTGACGC ATAAGAACTT TTTTGGAATA ACTATTTTAA TGGGGTTCGT
ATTAACTTAC TTGGCGTATA AGTATGGTTC CTATAAAAGA ACGGATCGTT TTATTTTAGG
ATTAGAATTG TTTTTGATTC TTATTTCAAA CACACGCTCA GTTTATTTAA
TACTATTGCT TTTTCTATTT CTTGTTAATC TTGACAAAAT CAAAATAGAA CAAAGACAAT
GGAGTACGCT TAAATATATT TCCATGCTAT TTTGTGCTAT TTTTTTATAC
TATTTCTTTG GTTTTTTAAT AACACATAGT GATTCTTACG CTCATCGCGT TAATGGTCTT
ATTAATTTTT TTGAGTATTA TAGAAATGAT TGGTTCCATC TAATGTTTGG
TGCAGCGGAT TTGGCATATG GGGATTTAAC TTTAGACTAT GCTATAAGGG TTAGACGCGT
TTTAGGTTGG AATGGAACGC TTGAAATGCC CTTACTGAGT ATTATGTTAA

DNA Serotype 2

FIG. 3D

AAAATGGTTT TATCGGTCTG GTAGGGTATG GGATTGTTTT ATATAAACTT TATCGTAATG
TAAGAATATT AAAAACAGAT AATATAAAAA CAATAGGAAA GTCTGTATTT
ATCATTGTAG TCCTATCTGC AACAGTAGAA AATTATATTG TAAATTTAAG TTTTGTATTT
ATGCCAATAT GTTTTTGTTT ATTAAATTCT ATATCTACTA TGGAATCAAC
TATTAACAAA CAACTGCAAA CATAAATTGG CAGGAATAGA GTTTTGAGTT GCTATTAATT
TGGTAGAGCA TATGTTCTAT AGGTGGCAAG ATAAAGATAG TATTTTTTAC
ATGATGATTT TTATGATAGC AAAGCAAGTT ACGGCATAAA AGGAATTAGA GGATGGAAAA
AGTCAGCATT ATTGTACCTA TTTTTAATAC GGAAAAGTAC TTAAGAGAGT
GTTTAGATAG CATTATTTCC CAATCGTATA CTAATCTAGA GATTCTTTTG ATAGATGACG
GTTCTTCAGA TTCATCAACG GATATATGTT TGGAATACGC AGAGCAAGAT
GGTAGAATAA AACTTTTCCG GTTACCAAAT GGTGGTGTTT CAAACGCAAG GAATTACGGT
ATCAAAAATA GCACAGCAAA TTATATTATG TTTGTAGATT CTGATGATAT
TGTTGACGGC AACATTGTTG AGTCCTTATA CACCTGTTTA AAAGAGAATG ATAGTGATTT
GTCGGGAGGG TTACTTGCTA CTTTTGATGG AAATTATCAA GAATCTGAGC
TGCAAAAGTG TCAAATTGAT TTGGAAGAGA TAAAAGAGGT GCGAGACTTA GGAAATGAAA
ATTTTCCCAA TCATTATATG AGCGGTATCT TTAATAGCCC TTGTTGCAAA
CTTTATAAGA ATATATATAT AAACCAAGGT TTTGACACTG AACAGTGGTT AGGAGAGGAC
TTATTATTTA ATCTAAATTA TTTAAAGAAT ATAAAAAAAG TCCGCTATGT
TAACAGAAAT CTTTATTTTG CCAGAAGAAG TTTACAAAGT ACTACAAATA CGTTTAAATA
TGATGTTTTT ATTCAATTAG AAAATTTAGA AGAAAAAACT TTTGATTTGT
TTGTTAAAAT ATTTGGTGGA CAATATGAAT TTTCTGTTTT TAAAGAGACG CTACAGTGGC
ATATTATTTA TTATAGCTTA TTAATGTTCA AAAATGGAGA TGAATCGCTT
CCAAAGAAAT TGCATATATT TAAGTATTTA TACAATAGGC ATTCTTTAGA TACTCTAAGT
ATTAAACGAA CGTCCTCTGT TTTTAAAAGA ATATGTAAAT TAATTGTTGC
TAATAATTTG TTTAAAATTT TTTTAAATAC TTTAATTAGG GAAGAAAAAA ATAATGATTA
ACATTTCTAT CATCGTCCCA ATTTACAATG TTGAACAATA TCTATCCAAG
TGTATAAATA GCATTGTAAA TCAGACCTAC AAACATATAG AGATTCTTCT GGTGAATGAC
GGTAGTACGG ATAATTCGGA AGAAATTTGT TTAGCATATG CGAAGAAAGA
TAGTCGCATT CGTTATTTTA AAAAAGAGAA CGGCGGGCTA TCAGATGCCC GTAATTATGG
CATAAGTCGC GCCAAGGGTG ACTACTTAGC TTTTATAGAC TCAGATGATT
TTATTCATTC GGAGTTCATC CAACGTTTAC ACGAAGCAAT TGAGAGAGAG AATGCCCTTG
TGGCAGTTGC TGGTTATGAT AGGGTAGATG CTTCGGGGCA TTTCTTAACA
GCAGAGCCGC TTCCTACAAA TCAGGCTGTT CTGAGCGGCA GGAATGTTTG TAAAAAGCTG
CTAGAGGCGG ATGGTCATCG CTTTGTGGTG GCCTGGAATA AACTCTATAA
AAAAGAACTA TTTGAAGATT TTCGATTTGA AAAGGGTAAG ATTCATGAAG ATGAATACTT
CACTTATCGC TTGCTCTATG AGTTAGAAAA AGTTGCAATA GTTAAGGAGT
GCTTGTACTA TTATGTTGAC CGAGAAAATA GTATCATAAC TTCTAGTATG ACTGACCATC
GCTTCCATTG CCTACTGGAA TTTCAAAATG AACGAATGGA CTTCTATGAA
AGTAGAGGAG ATAAAGAGCT CTTACTAGAG TGTTATCGTT CATTTTTAGC CTTTGCTGTT
TTGTTTTTAG GCAAATATAA TCATTGGTTG AGCAAACAGC AAAAGAAGCT
TCTCCAAACG CTATTTAGAA TTGTATATAA ACAATTGAAG CAAAATAAGC GACTTGCTTT
ACTAATGAAT GCTTATTATT TGGTAGGGTG TCTTCATCTT AATTTTAGTG
TCTTTCTGAA AACGGGGAAA GATAAAATTC AAGAAAGATT GAGAAGAAGT GAAAGTAGTA
CTCGGTAAGA ATGTTGTAAT AAATGGTTGA AAGAAAAGGG GATTAAAATG
AATCCAACAA ATAGTAGAAT AGCACTCTTT GATACGATTA AATGTATCAT GGTACTTTGT
GTTATTTTTA CACATCTGGA TTGGTCTGTT GAGCAGCGTC AATGGTTTAT
CTTTCCGTAT TTCGTTGACA TGGCTGTTCC AATTTTTCTG TTGCTTTCTG CCTATTTTCG
AACGAATAAG TGGAATACAA AACAAGAGAC GCTAAAGCTC AAGTTCAGCA
GTGGTATAAA AGAAAGTATA AACATGCTTT GTCTCTATGC TATCGTGATG GCTGTTAATG
TTTTATTGAG CTATTCGAGA ACCATCTGAT AGGAGTAAAG CCTTTTTCAG
GTTCTTCATC GCTCCGTTCA TTTGTCCTGT GGCTACTTTC TGGAGAATCG GGTCCAGGGA
GTTGGGAGTT ACTATGTTCC GTTGTTGATT CAGGTAGTTT TTTTATTACC
AATTTTGTAT GTTCTTTTCG AGAAAAATAA ATGGTTGGGC TTGCTTACTT GTTTTTTAGT
AAACTTTTCA GTGGATGCCA TATTTGCTAA CATGGCTGAA CACGGCATAT
ATATATAGAC TAATATCACT TCGTTATCTT TTTGTTCTAG GGCTTGGTTT TTTCTTTCAA
AGCAGGATGT GCGTTCCAAG GTAGATACTT TCATTGCGAC CCTATTTGGG
ATTATTGGAG CAATTCTGAT TTTTGTGAAT CATTCTATAG AGCCCTTCTC CTGGTTTTAT
GGTTGGAAGT CTACTTCCTT TCTATGCGTC CCATTTGCGT ATGCTATGCT
ATTTTTTATG ATAAAGTATG GACAGAAGAT TCCAGCAATA CTGTTGTCAA AATTGGGAGT
TGCTTCTTAT CATATCTACT TGACCCAGAT GCTGTATTTT TCAGTAGTCG

DNA Serotype 2

FIG. 3E

CACCATTTTT AGCAGTGCAA TTTAAGGTAT CTTCGTTGAA TTTGTGGAAC GGCTTGTTTA
CCTTTCTAAT TTGCCTGTTT GGTGGCTATA TTTTCTACAA AGTGGATCTG
TTTATGAGAG TACGTGGAAA ACGATAATGA CTCATTTCAG ATTAGCAGAT GCCATTTCGT
TTATTAGCAG ATTCGCATGT TAATATTCCG ACAAAGAAAT TCAAATAGGT
TGACGAGAGA GGAGTGGTAT CTGTTTCTAA ACCCCAGTAT CCCCCTTTAT TTTCAAAGCT
ATATTTATTA ACTGAACAAG GAGAATTTTT AAGAGAACTG TTTGTTTAAT
CCCAGCACGA TCTGGTTCGA AAGGCTTACC GAATAAAAAC ATGCTATTTT TGGACGGGAA
ACCCATGATT TTTCACACGA TTGATGTGGC AATTGAATCA GGTTGTTTTG
AGAAAGAAGA CATCTATGTC AGTACGGATT CAGAAATGTA TAAGGGGGGC ACCTCTATAA
ATTCCCAAAA TTGCGAATTT GGAGTTACGA AAGCCTTGTT AAATCAACAT
CTTAAATTTT AGAAAATTAG TTTTTAGAGG TCCCCAAGGG GATTTGCGAG ACAAGAGGCA
TCAATGTATT GTTAAGACCC AAAGAACTAT CTACTTATCA TACTCCATCG
AATGAAGTCA GTACGCACTT TTTTACGAAT CTGGATTTTA TGAAGATTGT ATATTTGTTC
TTCTGCAAGT CACCTCACCG TTACGGACTG GCGAACAGAT AAAAGAAGCC
ATGAATATGT ACTTACAGGG GGACTCAGAA AATGTTTTGC ATTTCAATGA TGAAGGGCAA
GAAAGAGTGA ATCAGTACAT TATCGAAGCT GTACAGGGGT TATAAAAAGG
GGTTACTTAT CCTTAAAGTC TGTATGTAGA AGGAGAAAAA TTGAGACGAA TTTATATTTG
CCATACGATG TATCAGATCC TGATTTCCTT GTTAAAGATG GACGTTGAGA
GAGATAGTTT GATGTCCGTT GATATCATCG GGCATTTTCC AGATGTCAGG GAGCAACTGC
AGCAGCATGT TCATCTAATC GAGGGAGACG GAGCGTTCAT TTGATCTATA
TTCTTTGATA GCTAGATCAA AAACAAAAGA ACGCCTTTCC TTGTTACAGA GCTATGACGA
GGTGATCATT TTTCAAGATC ACCGTCAAGT CGGTCATTTT TTAAATAAAC
ATCGGATTCC CTATTCTCTT TTGGAGGATG GTTATAATTT TTTCAAGGAT AAAAGAGTGT
GCGATTTGGA GTCAATTCAA TCATCTGTCT GGAAAAGACT CTTTTATCAA
TGGTATTTTA AACCAACATA TTTGATTGGT TCAAGTCTCT ATTGTCAATC CATTGAGGTC
AATGATCTGT CGCTCGTACA ATTTGACTAG GCTTATAAAC CCTTTGTAGA
AGTTCCGAGA AAGCAATTAT TTGATCAAGC ATCGCCAGAG AAGGTGCAAG CGCTGCTGCA
GATATTTGGA GCAAGGGCGA TAGTAGCGGA TGAAGAGTCT TCTCAAAAAC
GATTGCTATT ATTGACCCAG CCCTTGTCTT GGGATTATCA TGTGACCGAA GAGAGTTGTT
GGAGATTTAT GTAGCAGGTC TTGCCCCTTA TCGGGAAGAC TATACAATCT
ACATAAAACC GCACCCACGA GATGGGGTTG ATTATTCATT TCTGGGTAAG GCTGTGGTGC
TTCTGCCTCA AGGTATTCCG TTTGAGTTGT TCGAAATGGC AGGTAATATC
CGTTTTGATA TCGGTATGAC CTATAGTTCG TCTGCTTTAG ATTTTTTAAA TTGTTTTGAA
GAGAAAGTGT ATTTAAAGGA CACTTTTCCT CTTCTTTCAA AAAATGATAT
TTTGCGTGAG GGGATAGAAT AGGAGGATTC ATGTCTAAAA AATCAATAGT TGTCTCAGGT
CTCGTCTATA CGATTGGAAC CATCCTCGTT CAGGGATTAG CCTTCATTAC
CCTCCCCATC TATACTCGTG TCATTTCTCA GGAAGTATAT GGGCAGTTTA GCTTGTATAA
TTCGTGGGTG GGGCTAGTTG GTCTCTTTAT CGGTCTACAG TTAGGTGGGG
CTTTTGGCCC GGGATGGGTA CACTTCCGCG AGAAATTTGA TGATTTCGTA TCCACCTTGA
TGGTCTCTTC TATCGCTTTC TTTTTACCAA TTTTTGGGCT ATCTTTTCTC
CTCAGTCAGC CCCTATCGCT CCTATTTGGT TTGCCTGATT GGGTCGTTCC GCTTTACTTT
TTGCAAAGTT TTATGAGTGT TGTGCAAGGA TTTTTTACGA CCTATTTAGT
GCAGCGGCAG CAGTCCATGT GGACTTTACT CCTATCGGTA CTGAGCGCTG TTATCAACAC
TGCTTTATCT TTATTTCTCA TCTTTTCGAT GGAGAATGAT TTCATCGCTC
GTGTAATGGC AAACTCGGCA ACGACTGGTG TTTTTGCTTG TGTGTCCTTG TTGTTTTTCT
ATAAGAAGAT TGGGCTTCAT TTTCGAAAGG ACTATCTTCG GTATGGTTTA
AGTATATCGA TTCCTCTTAT TTTTCATGGA TTAGGTCATA ATGTACTCAA TCAATTTGAC
AGAATCATGC TCGGCAAGAT GCTAACACTG TCAGATGTAG CCCTATACAG
TTTCGGCTAC ACACTTGCGT CTATCTTACA AATTGTGTTT TCGAGCTTGA ATACGGTATG
GTGTCCGTGG TATTTTGAGA AAAAGAGAGG TGCAGATAAA GATTTGCTCA
GTTATGTCCG TTACTATCTG GCGATTGGCC TGTTTGTGAC TTTTGGATTT CTAACAATTT
ACCCTGAATT AGCGATGTTG TTAGGTGGAT CTGAGTATCG TTTCAGTATG
GGATTTATTC CCATGATTAT TGTCGGGGTG TTCTTTGTAT TTCTTTATAG TTTTCCAGCC
AATATCCAGT TTTATAGTGG AAATACAAAG TTTTTGCCAA TTGGTACTTT
TATAGCAGGT GTACTAAATA TTTCCGTCCA CTTTGTTTTG ATACCGACAA AGAATTTATG
GTGCTGCTTT GCAACGACTG CTTCCTATCT GTTGTTGCTA GTCTTGCATT
ATTTTGTTGC TAAGAAAAAG TATGCTTACG ATGAAGTTGC GATTTCAACA TTTGTTAAGG
TAATTGCTCT TGTTGTCGTC TATACAGGCT TGATGACAGT ATTTGTCGGT
TCAATCTGGA TTCGTTGGTC ACTAGGAATA GCGGTTCTAG TCGTTTATGC CTACATTTTT
AGAAAGGAAT TAACAGTTGC CCTCAATACA TTCAGGGAAA AACGGTCTAA

DNA Serotype 2

FIG. 3F

ATAAGGGCAC CTCTATAAAC TCCCAAAATT GCGAATTTGG AGTTACGAAA GCCTTGTTAA
ATCAAACATT TTAAATTTTA GAAAATTAGT TTTTAGAGGT CCCCATATAA
AAACGTCCCA AATGAGAGGT GCTCATAAGA ATTGACCATC ACTGCCATCT ACCCAAAGTT
CAAGTATTCT CTACCATGAA AATTGTGCTA TAATCAAGTA TAAAGAAGGG
AATGTTTCTT AAAGGACGTA TGCGCCTCTG CTTATGCCAG AAGTCATGAG GTAAATCTCC
CTAAAAATTG GGTAGAAAAG CAGATTAAAC TTCCACCAAT CTATTGAAGA
TCGTGTTGAA GAGCAGGCTT TAGAAGCAAC AAGCCCTGAG ACTATTCGAA AGAAATCTAG
GGCTATTTTT TCTAATCGGC TATCAGAAGT GAAGTAGCGA TCTTTATTAG
TGTTCTTTTA CTACTTAAGG AAAACCAAGC TGCTCCCTCA AGACTTTATG GGAGCGATTT
ACAGTCATTT TTAGAAAGGA AATAAAATGG TTTATATTAT TGCAGAAATT
GGTTGTAATC ACAACGGTGA TGTTCATCTA GCACGGAAAA TGGTAGAAGT TGCCGTTGAT
TGTGGTGTGG ATGCCGTTAA ATTTCAGACA TTTAAGGCAG ATTTGTTGAT
TTCAAAATAC GCACCAAAGG CCGAATACCA AAAAATTACA ACAGGAGAGT CAGATTCTCA
GCTCGAAATG ACTCGTCGTT TGGAATTGAG CTTTGAAGAG TATCTTGATT
TGCGTGATTA CTGTCTTGAA AAGGGAGTTG ATGTGTTTTC GACACCTTTT GATGAGGAAT
CATTGGACTT CTTGATTAGC ACAGATATGC CCGTTTATAA GATTCCATCT
GGTGAGATTA CCAATCTTCC CTATTTGGAA AAAATTGGTC GTCAAGCTAA GAAAGTTATT
CTTTCAACTG GTATGGCTGT TATGGATGAA ATTCATCAAG CGGTGAAGAT
TTTGCAGGAA AATGGAACGA CCGATATTTC GATTTTGCAT TGTACAACCG AGTATCCAAC
CCCTTACCCT GCTTTGAATT TGAATGTCTT GCATACCTTG AAAAAAGAAT
TTCCAAACTT AACAATTGGC TATTCAGACC ATAGTGTTGG TTCAGAAGTA CCCATCGCTG
CTGCAGCAAT GGGAGCTGAA TTGATTGAAA AGCACTTTAC TCTGGACAAT
GAAATGGAAG GACCAGATCA TAAAGCGAGT GCTACTCCTG ATATCTTAGC AGCCTTGGTA
AAAGGAGTGA GGATAGTGGA ACAATCTCTT GGTAAATTTG AAAAAGAGCC
AGAAGAAGTT GAAGTACGAA ATAAAATTGT AGCTAGAAAA TCTATTGTTG CCAAAAAAGC
AATTGCTAAA GGCGAAGTCT TTACAGAAGA AAACATCACT GTCAAAAGAC
CAGGAAATGG AATTTCGCCA ATGGAATGGT ACAAAGTCTT GGGGCAGGTG AGTGAGCAGG
ATTTTGAGGA AGACCAAAAT ATTTGCCATA GTGCTTTTGA AAATCAAATG
TAAGCGGAGT AAGGATGAAA AAAATTTGTT TTGTGACAGG CTCTCGTGCC GAATATGGGA
TTATGCGTCG CTTATTGAGC TATCTACAGG ATGATCCAGA AATGGAGCTG
GATCTTGTAG TGACAGCCAT GCATCTAGAA GAAAAATATG GGATGACGGT CAAAGACATC
GAAGCGGACA AGCGTAGGAT TGTCAAGCGG ATTCCATTGC ATTTGACGGA
TACGTCTAAG CAGACAATCG TCAAATCTTT AGCGACCTTG ACAGAGCAAC TCACGGTTCT
TTTTGAAGAA GTCCAGTATG ACTTGGTGTT GATTCTGGGG GATCGCTATG
AGATGCTACC AGTTGCCAAT GCTGCGTTGC TTTATAATAT TCCTATTTGC CATATTCATG
GTGGTGAAAA AACCATGGGA AATTTTGATG AGTCGATTCG CCATGCCATT
ACCAAGATGA GTCACCTTCA TCTGACATCA ACGGATGAAT TTAGAAATCG TGTCATTCAA
CTAGGAGAAA ATCCAACCAT GTACTGAACA TCGGAGCTAT GGGTGTTGAA
AATGTTTTAA AACAAGACTT TTTGACAAGA GAAGAGTTGG CGATGGAACT TGGAATTGAT
TTTGCCGAGG ATTACTATGT TGTACTCTTT CACCCTGTTA CCTTGGAGGA
TAACACAGCC GAAGAACAAA CGCAGGCCTT ATTAGATGCT CTAAAAGAAG ATGGTAGCCA
GTGTTTGATA ATTGGATCCA ATTCGGATAC ACATGCCGAT AAGATAATGG
AATTGATGCA TGAATTTGTA AAACAAGACT CTGATTCTTA CATCTTTACT TCGCTTCCAA
CTCGTTATTA CCATTCCTTG GTCAAGCATT CACAAGGTTT AATAGGGAAT
TCTTCGTCAG GTTTGATTGA AGTGCCCTCA TTACAGGTTC CGACCTTAAA TATTGGAAAT
CGCCAATTTG GACGTTTGTC AGGACCGAGT GTGGTACATG TTGGAACTTC
TAAGGAAGCG ATTGTTGGTG GTTTGGGGCA ATTACGTGAT GTGATAGATT TTACCAATCC
ATTTGAACAA CCTGATTCTG CTTTACAAGG TTATCGAGCT ATCAAGGAAT
TTTTATCTGT ACAGGCCTCA ACCATGAAAG AGTTTTATGA TAGATAGGGG AGAAAGTTTG
ATGAAAAAAG TAGCCTTTCT AGGAGCGGGT ACCTTTTCAG ATGGTGTCCT
TCCTTGGTTG GATAGAACTC GATATGAACT CATTGGATAT TTTGAAGATA AACCGATCAG
TGACTATCGT GGCTATCCTG TATTTGGTCC CTTGCAAGAT GTCCTAACCT
ATTTGGATGA TGGAAAAGTA GATGCTGTCT TCGTCACTAT AGGTGACAAT GTCAAGCGCA
AGGAAATCTT TGACTTGCTT GCCAAAGATC ATTATGATGC TTTGTTCAAC
ATCATTAGCG AGCAAGCCAA TATTTTTTCC CCAGATAGTA TCAAGGGACG AGGGGTTTTC
ATAGGTTTTT CAAGTTTTGT AGGAGCCGAT TCCTATGTCT ATGACAATTG
TATCATCAAT ACGGGTGCCA TTGTGGAACA TCATACCACG GTGGAGGCCC ATTGTAACAT
TACTCCAGGA GTGACCATAA ATGGCTTGTG CCGTATCGGA GAAAGCACTT
ATATTGGAAG TGGTTCAACA GTGATTCAAT GTATCGAGAT TGCACCTTAT ACAACATTGG
GGGCAGGGAC AGTTGTTTTG AAATCGTTGA CGGAGTCAGG GACCTATGTT

DNA Serotype 2

FIG. 3G

GGTGTACCTG CTAGAAAGAT TAAATAGGTG AATTGATGGA ACCAATTTGT CTGATTCCTG
CTCGGTCAGG ATCAAAAGGT TTACCAAATA AAAACATGTT ATTTTTAGAT
GGTGTACCGA TGATTTTCCA TACCATTCGA GCTGCGATTG AGTCTGGATG TTTTAAGAAA
GAAAATATAT ATGTCAGTAC TGATTCAGAG GTTTACAAGG AAATTTGTGA
AACAACTGGG GTTCAAGTCC TCATGCGTCC AGCTGACTTG GCGACAGATT TTACAACCTC
TTTTCAACTG AACGAACATT TTTTACAAGA TTTTTCTGAT GACCAAGTAT
TTGTTCTCCT GCAAGTTACG TCCCCATTAA GATCGGGAAA ACATGTCAAG GAGGCGATGG
AGTTATATGG GAAAGGTCAA GCTGACCACG TTGTTAGCTT TACCAAAGTC
GATAAGTCTC CAACATTGTT TTCAACTTTA GACGAAAACG GATTCGCTAA GGATATTGCA
GGATTAGGTG GCAGTTATCG TCGTCAAGAT GAGAAAACAC TCTACTATCC
TAATGGAGCG ATTTATATTT CTTCTAAGCA GGCTTATTTA GCGGATAAAA CTTATTTTTC
TGAAAAAACA GCGGCCTATG TGATGACGAA GGAAGATTCG ATTGATGTAG
ATGATCACTT TGATTTTACT GGTGTTATTG GTCGAATTTA CTTTGATTAC CAGCGTCGTG
AGCAACAAAA CAAACCATTT TATAAAAGAG AGTTAAAGCG TTTATGTGAG
CAACGAGTCC ATGATAGTCT TGTGATTGGC GATAGTCGTC TGTTAGCCTT GTTACTGGAT
GGTTTCGATA ATATCAGCAT CGGTGGGATG ACAGCTTCGA CAGCACTTGA
AAACCAAGGT CTCTTTTTGG CTACTCCGAT AAAGAAAGTT TTGCTTTCTC TTGGTGTGAA
TGATTTGATT ACTGACTATC CCTTGCATAT GATTGAGGAT ACTATTCGCC
AGCTGATGGA AAGTCTTGTT TCCAAAGCAG AGCAGGTTTT TGTGACGACG ATTGCCTACA
CGCTGTTTCG TGATAGCGTT TCCAATGAAG AAATTGTGCA GCTGAATGAC
GTTATTGTTC AGTCAGCAAG TGAACTGGGT ATTTCAGTGA TTGATCTAAA TGAAGTTGTT
GAAAAAGAGG CGATGCTTGA CTATCAGTAT ACCAATGATG GATTGCATTT
CAATCAGATT GGACAAGAGC GTGTGAATCA GCTGATTTTG ACAAGTTTGA CAAGATAATT
TGGTGATAGA AGCTATTTCA GTGGCTAGAC TATGTTGGTA TGTGTTTTAG
AGCCCAGGAA TAACATCTGT AGAGGATGCT AGCCTTGAGA ATTGACAACC ATTTAGTTGT
TTTAATTATA TAAGGGGACC TCTAAAAACT CCCTAAATTT CCCAAAAATG
AGATAATAGA ATAAAAAGTA ATGAGGAGAG CTGTCATGCA TTTATTCACA GACGATGAAA
AAATCTTGTC AAAACTATCA GAGAAAGGCA ATCCCTTAGA ACGTTTGGAT
GCCGTTATGG ATTGGAATAT CTTTCTTCCA TTGTTGTCAG AGTTATTCAG TCGTAAAGAT
AAAGTCATCA GTCGTGGCGG TCGTCCTCAC CTAGACTATC TCATGATGTT
CAAAGCGCTC TTGCTTCAAC GTCTTCATAA CCTATCTGAC GATGCCATGG AATATCAACT
GCTGGATCGT ATATCTTTTC GTCGTTTTGT TGGTTGTCAT GAAGACACTG
TTCCCGATGC GAAAACTATC TGGCTCTATC GTGAGAAATT AACCAAGTCA GGTCGTGAAA
AGGAGTTGTT CGATTTGTTC TATGCCCATC TCACAGATGA AGGGGTGATT
GCCCATTCAG GTCAGATTGT GGATGCTACC TTTGTCGAAT GCCCTAAACA ACGCAATTCA
CGTGAGGACA ATCAGAAAAT CAAAACTTAT CGAAAATTAT GAGGTCACAA
CAGCTAGTGT ACACGACTCC AATGTCCTAG CTCCTCTTTG TGATGCCAAT GAAGCGGTTT
TTGATGACAG TGCTTATGTT GGAAAATCAG TACCAGAAGG TTGTCGCCAC
CACACGATTC GTCGTGCTTT TAGAAATAAA CCGTTGACTG AGACTGATAA GGTCATTAAT
CGACATATTA CCAAAGTCCG TTGTCGCGTT GAGCATGGTT TTGGCTTCAT
TGAAACTAAC ATGAAAGGTA ACATCTGTCG AGCAATTGGG AAGGCACGAG CTGAAACCAA
TGTGACCTTA ACCAACCTGC TCTACAATAT CTGTCGTTTT GAGCAAATCA
AACGACTGGG ATTACCATCC GTGGGCTTAG TGCGCCCAAA AAATAGGAAA ATAAGCAAAA
AGAGGCTGGG CAAAAACTAG TTTCTCACAA TAAAAAAACG GCTCTTTGTC
AACTGTAGTG GGTAGACGAA AAGCTAACAC CTAGAGAGGA CGAAATTCGT TCTCTCATTT
TTGATGTTTA AAGCGTAACC GCCTAATAAC AAGGTATCTA TCCAATCACA
CATTCCTCCA TTATATAGTT AAATGAAACA AAAACAGTAC ATCTATGATA TAATGTATTT
ATGGCATATT CATTAGATTT TCGTAAAAAA GTTCTCGCAT ACTGTGAGAA
AACCGGCAGT ATTACTGAAG CATCAGCTAT TTTCCAAGTT TCACGTAACA CTATCTATCA
ATGGCTAAAA TTAAAAGAGA AAACCGGCGA GCTTCATCAC CAAGTTAAAG
GAACCAAGCC AAGAAAAGTG GATAGAGATA AATTAAAGAA TTATCTTGAA ACTCATCCAG
ATGCTTATTT GACTGAAATA GCTTCTGAAT TTGACTGTCA TCCAACAGCT
ATTCATTACC CCCTCAAAGC TATGGGATAT ACTCGAAAAA AAAGAGCTGT ACCTACTATG
AACAAGACCC TGAAAAAGTA GAACTGTTCC TTAAAGAATT GAATAACTTA
AGCCACTTGA CTCCTGTTTA TATTGACGAG ACAGGGTTTG AGACATATTT TCATCGAAAA
TATGGTCGCT CTTTGAAAGG TCAGTTGATA AAAGGTAAGG TCTCTGGAAG
AAGATACCAG CGGATATCTT TAGTAGCAGG TCTCATAAAT GGTGCGCTTA TAGCCCCGAT
GACATACAAA GATACTATGA CGAGTGGCTT TTTCGAAGCT T

DNA Serotype 2

FIG. 3H

SEQ ID NO:9

SLDIDHMMEVMEASKSAAGSACPSPQAYQAAFEGAENIIVVTITGGLSGSFNAARVARDM
YIEEHPNVNIHLIDSLSASGEMDLLVHQINRLISAGLDFPQVVEAITHYREHSKLLFVLA
KVDNLVKNGRLSKLVGTVVGLLNIRMVGEASAEGKLELLQKARGHKKSVTAAFEEMKKAG
YDGGRIVMAHRNNAKFFQQFSELVKASFPTAVIDEVATSGLCSFYAEEGGLLMGYEVKA

ORF2Z

DNA Serotype 2

SEQ ID NO:10

FIG. 3I

MKKYQVIIQDILTGIEEHRFKRGEKLPSIRQLREQYHCSKDTVQKAMLELKYQNKIYAVE
KSGYYILEDRDFQDHTCRAQSYRLSRITYEDFRICLKESLIGRENYLFNYYHQQEGLAEL
ISSVQSLLMDYHVYTKKDQLVITAGSQQALYILTQMETLAGKTEILIENPTYSRMIELIR
HQGIPYQTIERNLDGIDLEELESIFQTGKIKFFYTIPRLHNPLGSTYDIATKTAIVKLAK
QYDVYIIEDDYLADFDSSHSLPLHYLDTDNRVIYIKSFTPTLFPALRIGAISLPNQLRDI
FIKHKSLIDYDTNLIMQKALSLYIDNGMFARNTQHLHHIYHAQWNKIKDCLEKYALNIPY
RIPKGSVTFQLSKGILSPSIQHMFGKCYYFSGQKADFLQIFFEQDFADKLEQFVRYLNE

ORF2Y

DNA Serotype 2

SEQ ID NO:53

FIG. 3J

MKIIIPNAKEVNTNLENASFYLLSDRSKPVLDAISQFDVKKMAAFYKLNEAKAELEADRW
YRIRTGQAKTYPAWQLYDGLMYRYMDRRGIDSKEENYLRDHVRVATALYGLIHPFEFISP
HRLDFQGSLKIGNQSLKQYWRPYYDQEVGDDELILSLASSEFEQVFSPQIQKRLVKILFM
EEKAGQLKVHSTISKKGRGRLLSWLAKNNIQELSDIQDFKVDGFEYCTSESTANQLTFXR
SIKM

ORF2X

DNA Serotype 2

SEQ ID NO:11

FIG. 3K

MKKRSGRSKSSKFKLVNFALLGLYSITLCLFLVTMYRYNILDFRYLNYIVTLLLVGVAVL
AGLLMWRKKARIFTALLLVFSLVITSVGIYGMQEVVKFSTRLNSNSTFSEYEMSILVPAN
SDITDVRQLTSILAPAEYDQDNITALLDDISKMESTQLATSPGTSYLTAYQSMLNGESQA
MVFNGVFTNILENEDPGFSSKVKKIYSFKVTQTVETATKQVSGDSFNIYISGIDAYGPIS
TVSRSDVNIIMTVNRATHKILLTTTPRDSYVAFADGGQNQYDKLTHAGIYGVNASVHTLE
NFYGIDISNYVRLNFISFLQLIDLVGGIDVYNDQEFTSLHGNYHFPVGQVHLNSDQALGF
VRERYSLTGGDNDRGKNQEKVIAALIKKMSTPENLKNYQAILSGLEGSIQTDLSLETIMS
LVNTQLESGTQFTVESQALTGTGRSDLSSYAMPGSQLYMMEINQDSLEQSKAAIQSVLVE
K

CPS2A

DNA Serotype 2 **SEQ ID NO:12**

FIG. 3L

MNNQEVNAIEIDVLFLLKTIWRKKFLILLTAVLTAGLAFVYSSFLVTPQYDSTTRIYVVS
QNVEAGAGLTNQELQAGTYLAKDYREIILSQDVLTQVATELNLKESLKEKISVSIPVDTR
IVSISVRDADPNEAARIANSLRTFAVQKVVEVTKVSDVTTLEEAVPAEEPTTPNTKRNIL
LGLLAGGILATGLVLVMEVLDDRVKRPQDIEEVMGLTLLGIVPDSKKLK

CPS2B

DNA Serotype 2

SEQ ID NO:13

FIG. 3M

MAMLEIARTKREGVNKTEEYFNAIRTNIQLSGADIKVVGITSVKSNEGKSTTAASLAIAY
ARSGYKTVLVDADIRNSVMPGFFKPITKITGLTDYLAGTTDLSQGLCDTDIPNLTVIESG
KVSPNPTALLQSKNFENLLATLRRYYDYVIVDCPPLGLVIDAAIIAQKCDAMVAVVEAGN
VKCSSLKKVKEQLEQTGTPFLGVILNKYDIATEKYSEYGNYGKKA

CPS2C

DNA Serotype 2

SEQ ID NO:14

FIG. 3N

MIDIHSHIIFGVDDGPKTIEESLSLISEAYRQGVRYIVATSHRRKGMFETPEKIIMINFL
QLKEAVAEVYPEIRLCYGAELYYSKDILSKLEKKKVPTLNGSCYILLEFSTDTPWKEIQE
AVNEMTLLGLTPVLAHIERYDALAFQSERVEKLIDKGCYTQVNSNHVLKPALIGERAKEF
KKRTRYFLEQDLVHCVASDMHNLYSRPPFMREAYQLVKKEYGEDRAKALFKKNPLLILKN
QVQ

CPS2D

DNA Serotype 2

SEQ ID NO:15

FIG. 3O

MNIEIGYRQTKLALFDMIAVTISAILTSHIPNADLNRSGIFIIMMVHYFAFFISRMPVEF
EYRGNLIEFEKTFNYSIIFVIFLMAVSFMLENNFALSRRGAVYFTLINFVLVYLFNVIIK
QFKDSFLFSTTYQKKTILITTAELWENMQVLFESDILFQKNLVALVILGTEIDKINLPLP
LYYSVEEAIGFSTREVVDYVFINLPSEYFDLKQLVSDFELLGIDVGVDINSFGFTVLKNK
KIQMLGDHSIVTFSTNFYKPSHIWMKRLLDILGAVVGLIISGIVSILLIPIIRRDGGPAI
FAQKRVGQNGRIFTFYKFRSMFVDAEVRKKELMAQNQMQGGMFKMDNDPRITPIGHFIRK
TSLDELPQFYNVLIGDMSLVGTRPPTVDEFEKYTPSQKRRLSFKPGITGLWQVSGRSDIT
DFNEVVRLDLTYIDNWTIWSDIKILLKTVKVVLLREGGQ

CPS2E

DNA Serotype 2

SEQ ID NO:16

FIG. 3P

MRTVYIIGSKGIPAKYGGFETFVEKLTEYQKDKSINYFVACTRENSAKSDITGEVFEHNG
ATCFNIDVPNIGSAKAILYDIMALKKSIEIAKDRNDTSPIFYILACRIGPFIYLFKKQIE
SIGGQLFVNPDGHEWLREKWSYPVRQYWKFSESLMLKYADLLICDSKNIEKYIHEDYRKY
APETSYIAYGTDLDKSRLSPTDSVVREWYKEKEISENDYYLVVGRFVPENNYEVMIREFM
KSYSRKDFVLITNVEHNSFYEKLKKETGFDKDKRIKFVGTVYNQELLKYIRENAFAYFHG
HEVGGTNPSLLEALSSTKLNLLLDVGFNREVGEEGAKYWNKDNLHRVIDSCEQLSQEQIN
DMDSLSTKQVKERFSWDFIVDEYEKLFKG

CPS2F

DNA Serotype 2 **SEQ ID NO:17**

FIG. 3Q

MKKILYLHAGAELYGADKVLLELIKGLDKNEFEAHVILPNDGVLVPALREVGAQVEVINY
PILRRKYFNPKGIFDYFISYHHYSKQIAQYAIENKVDIIHNNTTAVLEGIYLKRKLKLPL
LWHVHEIIVKPKFISDSINFLMGRFADKIVTVSQAVANHIKQSPHIKDDQISVIYNGVDN
KVFYQSDARSVRERFDIDEEALVIGMVGRVNAWKGQGDFLEAVAPILEQNPKAIAFIAGS
AFEGEEWRVVELEKKISQLKVSSQVXRMDYYANTTELYNMFDIFVLPSTNPDPLPTVVLK
AMACGKPVVGYRHGGVCEMVKEGVNGFLVTPNSPLNLSKVILQLSENINLRKKIGNNSIE
RQKEHFSLKSYVKNFSKVYTSLKVY

CPS2G

DNA Serotype 2 **SEQ ID NO:18**

FIG. 3R

MKIISFTMVNNESEIIESFIRYNYNFIDEMVIIDNGCTDNTMQIIFNLIKEGYKISVYDE
SLEAYNQYRLDNKYLTKIIAEKNPDLIIPLDADEFLTADSNPRKLLEQLDLEKIHYVNWQ
WFVMTKKDDINDSFIPRRMQYCFEKPVWHHSDGKPVTKCIISAKYYKKMNLKLSMGHHTV
FGNPNVRIEHHNDLKFAHYRAISQEQLIYKTICYTIRDIATMENNIETAQRTNQMALIES
GVDMWETAREASYSGYDCNVIHAPIDLSFCKENIVIKYNELSRETVAERVMKTGREMAVR
AYNVERKQKEKKFLKPIIFVLDGLKGDEYIHPNPSNHLTILTEMYNVRGLLTDNHQIKFL
KVNYRLIITPDFAKFLPHEFIVVPDTXDIEQVKSQYVGTGVDLSKIISLKEYRKEIGFIG
NLYALLGFVPNMLNRIYLYIQRNGIANTIIKIKSRL.

CPS2H

DNA Serotype 2 **SEQ ID NO:19**

FIG. 3S

MQADRRKTFGKMRIRINNLFFVAIAFMGIIISNSQVVLAIGKASVIQYLSYLVLILCIVN
DLLKNNKHIVVYKLGYLFLIIFLFTIGICQQILPITTKIYLSISMMIISVLATLPISLIK
DIDDFRRISNHLLFALFITSILGIKMGATMFTGAVEGIGFSQGFNGGLTHKNFFGITILM
GFVLTYLAYKYGSYKRTDRFILGLELFLILISNTRSVYLILLLFLFLVNLDKIKIEQRQW
STLKYISMLFCAIFLYYFFGFLITHSDSYAHRVNGLINFFEYYRNDWFHLMFGAADLAYG
DLTLDYAIRVRRVLGWNGTLEMPLLSIMLKNGFIGLVGYGIVLYKLYRNVRILKTDNIKT
IGKSVFIIVVLSATVENYIVNLSFVFMPICFCLLNSISTMESTINKQLQT

CPS2I

DNA Serotype 2 **SEQ ID NO:20**

FIG. 3T

MEKVSIIVPIFNTEKYLRECLDSIISQSYTNLEILLIDDGSSDSSTDICLEYAEQDGRIK
LFRLPNGGVSNARNYGIKNSTANYIMFVDSDDIVDGNIVESLYTCLKENDSDLSGGLLAT
FDGNYQESELQKCQIDLEEIKEVRDLGNENFPNHYMSGIFNSPCCKLYKNIYINQGFDTE
QWLGEDLLFNLNYLKNIKKVRYVNRNLYFARRSLQSTTNTFKYDVFIQLENLEEKTFDLF
VKIFGGQYEFSVFKETLQWHIIYYSLLMFKNGDESLPKKLHIFKYLYNRHSLDTLSIKRT
SSVFKRICKLIVANNLFKIFLNTLIREEKNND

CPS2J

DNA Serotype 2 **SEQ ID NO:21**

FIG. 3U

MINISIIVPI YNVEQYLSKC INSIVNQTYK HIEILLVNDG STDNSEEICL AYAKKDSRIR
YFKKENGGLS DARNYGISRA KGDYLAFIDS DDFIHSEFIQ RLHEAIEREN
ALVAVAGYDR VDASGHFLTA EPLPTNQAVL SGRNVCKKLL EADGHRFVVA WNKLYKKELF
EDFRFEKGKI HEDEYFTYRL LYELEKVAIV KECLYYYVDR ENSIITSSMT
DHRFHCLLEF QNERMDFYES RGDKELLLEC YRSFLAFAVL FLGKYNHWLS KQQKKLLQTL
FRIVYKQLKQ NKRLALLMNA YYLVGCLHLN FSVFLKTGKD KIQERLRRSE
SSTR

CPS2K

DNA Serotype 2

SEQ ID NO:22

FIG. 3V

MSKKSIVVSG LVYTIGTILV QGLAFITLPI YTRVISQEVY GQFSLYNSWV GLVGLFIGLQ
LGGAFGPGWV HFREKFDDFV STLMVSSIAF FLPIFGLSFL LSQPLSLLFG
LPDWVVPLIF LQSLMIVVQG FFTTYLVQRQ QSMWTLPLSV LSAVINTALS LFLTFPMEND
FIARVMANPA TTGVLACVSX WFSQKKNGLH FRKDYLRYGL SISIPLIFHG
LGHNVLNQFD RIMLGKMLTL SDVALYSFGY TLASILQIVF SSLNTVWCPW YFEKKRGADK
DLLSYVRYYL AIGLFVTFGF LTIYPELAML LGGSEYRFSM GFIPMIIVGV
FFVFLYSFPA NIQFYSGNTK FLPIGTFIAG VLNISVHFVL IPTKNLWCCF ATTASYLLLL
VLHYFVAKKK YAYDEVAIST FVKVIALVVV YTGLMTVFVG SIWIRWSLGI
AVLVVYAYIF RKELTVALNT FREKRSK

CPS20

DNA Serotype 2 **SEQ ID NO:23**

FIG. 3W

MVYIIAEIGC NHNGDVHLAR KMVEVAVDCG VDAVKFQTFK ADLLISKYAP KAEYQKITTG
ESDSQLEMTR RLELSFEEYL DLRDYCLEKG VDVFSTPFDE ESLDFLISTD
MPVYKIPSGE ITNLPYLEKI GRQAKKVILS TGMAVMDEIH QAVKILQENG TTDISILHCT
TEYPTPYPAL NLNVLHTLKK EFPNLTIGYS DHSVGSEVPI AAAAMGAELI
EKHFTLDNEM EGPDHKASAT PDILAALVKG VRIVEQSLGK FEKEPEEVEV RNKIVARKSI
VAKKAIAKGE VFTEENITVK RPGNGISPME WYKVLGQVSE QDFEEDQNIC
HSAFENQM

CPS2P

DNA Serotype 2 **SEQ ID NO:24**

FIG. 3X

MKKICFVTGS RAEYGIMRRL LSYLQDDPEM ELDLVVTAMH LEEKYGMTVK DIEADKRRIV
KRIPLHLTDT SKQTIVKSLA TLTEQLTVLF EEVQYDLVLI LGDRYEMLPV
ANAALLYNIP ICHIHGGEKT MGNFDESIRH AITKMSHLHL TSTDEFRNRV IQLGENPTMY

CPS2Q

DNA Serotype 2 **SEQ ID NO:25**

FIG. 3Y

MELGIDFAED YYVVLFHPVT LEDNTAEEQT QALLDALKED GSQCLIIGSN SDTHADKIME
LMHEFVKQDS DSYIFTSLPT RYYHSLVKHS QGLIGNSSSG LIEVPSLQVP
TLNIGNRQFG RLSGPSVVHV GTSKEAIVGG LGQLRDVIDF TNPFEQPDSA LQGYRAIKEF
LSVQASTMKE FYDR

CPS2R

DNA Serotype 2 **SEQ ID NO:26**

FIG. 3Z

MKKVAFLGAG TFSDGVLPWL DRTRYELIGY FEDKPISDYR GYPVFGPLQD VLTYLDDGKV
DAVFVTIGDN VKRKEIFDLL AKDHYDALFN IISEQANIFS PDSIKGRGVF
IGFSSFVGAD SYVYDNCIIN TGAIVEHHTT VEAHCNITPG VTINGLCRIG ESTYIGSGST
VIQCIEIAPY TTLGAGTVVL KSLTESGTYV GVPARKIK

CPS2S

DNA Serotype 2 **SEQ ID NO:27**

FIG. 3AA

MEPICLIPAR SGSKGLPNKN MLFLDGVPMI FHTIRAAIES GCFKKENIYV STDSEVYKEI
CETTGVQVLM RPADLATDFT TSFQLNEHFL QDFSDDQVFV LLQVTSPLRS
GKHVKEAMEL YGKGQADHVV SFTKVDKSPT LFSTLDENGF AKDIAGLGGS YRRQDEKTLY
YPNGAIYISS KQAYLADKTY FSEKTAAYVM TKEDSIDVDD HFDFTGVIGR
IYFDYQRREQ QNKPFYKREL KRLCEQRVHD SLVIGDSRLL ALLLDGFDNI SIGGMTASTA
LENQGLFLAT PIKKVLLSLG VNDLITDYPL HMIEDTIRQL MESLVSKAEQ
VFVTTIAYTL FRDSVSNEEI VQLNDVIVQS ASELGISVID LNEVVEKEAM LDYQYTNDGL
HFNQIGQERV NQLILTSLTR

CPS2T

DNA Serotype 2 **SEQ ID NO:28**

FIG. 3BB

ATCGCCAAAC GAAATTGGCA TTATTTGATA TGATAGCAGT TGCAATTTCT GCAATCTTAA CAAGTCATAT
ACCAAATGCT GATTTAAATC GTTCTGGAAT TTTTATCATA
ATGATGGTTC ATTATTTTGC ATTTTTTATA TCTCGTATGC CAGTTGAATT TGAGTATAGA GGTAATCTGA
TAGAGTTTGA AAAAACATTT AACTATAGTA TAATATTTGC
AATTTTTCTT ACGGCAGTAT CATTTTTGTT GGAGAATAAT TTCGCACTTT CAAGACGTGG TGCCGTGTAT
TTCACATTAA TAAACTTCGT TTTGGTATAC CTATTTAACG
TAATTATTAA GCAGTTTAAG GATAGCTTTC TATTTTCGAC AATCTATCAA AAAAAGACGA TTCTAATTAC
AACGGCTGAA CGATGGGAAA ATATGCAAGT TTTATTTGAA
TCACATAAAC AAATTCAAAA AAATCTTGTT GCATTGGTAG TTTTAGGTAC AGAAATAGAT AAAATTAATT
TATCATTACC GCTCTATTAT TCTGTGGAAG AAGCTATAGA
GTTTTCAACA AGGGAAGTGG TCGACCACGT CTTTATAAAT CTACCAAGTG AGTTTTTAGA CGTAAAGCAA
TTCGTTTCAG ATTTTGAGTT GTTAGGTATT GATGTAAGCG
TTGATATTAA TTCATTCGGT TTTACTGCGT TGAAAAACAA AAAAATCCAA CTGCTAGGTG ACCATAGCAT
TGTAACTTTT TCCACAAATT TTTATAAGCC TAGTCATATC
ATGATGAAAC GACTTTTGGA TATACTCGGA GCGGTAGTCG GGTTAATTAT TTGTGGTATA GTTTCTATTT
TGTTAGTTCC AATTATTCGT AGAGATGGTG GACCGGCTAT
TTTTGCTCAG AAACGAGTTG GACAGAATGG ACGCATATTT ACATTCTACA AGTTTCGATC GATGTATGTT
GATGCTGAGG AGCGCAAAAA AGACTTGCTC AGCCAAAACC
AGATGCAAGG GTGGGTATGT TTTAAAATGG GAAAAACGAT CCTAGAATTA CTCCAATTGG ACATTTCATA
CGCAAAAACA AGTTTAGACG AGTTACCACA GTTTTATAAT
GTTTTAATTG GCGATATGAG TCTAGTTGGT ACACGTCCAC CTACAGTTGA TGAATTTGAA AAATATACTC
CTGGTCAAAA GAGACGATTG AGTTTTAAAC CAGGGATTAC
AGGTCTCTGG CAGGTTAGTG GTCGTAGTAA TATCACAGAC TTCGACGACG TAGTTCGGTT GGACTTAGCA
TACATTGATA ATTGGACTAT CTGGTCAGAT ATTAAAATTT
TATTAAAGAC AGTGAAAGTT GTATTGTTGA GAGAGGGAAG TAAGTAAAAG TATATGAAAG TTTGTTTGGT
CGGTTCTTCA GGGGGACATT TGACTCACTT GTATTTGTTA
AAACCGTTTT GGAAGGAAGA AGAACGTTTT TGGGTAACAT TTGATAAAGA GGATGCAAGA AGTCTTTTGA
AGAATGAAAA AATGTATCCA TGTTACTTTC CAACAAATCG
CAATCTCATT AATTTAGTGA AAAATACTTT CTTAGCTTTC AAAATTTTAC GTGATGAGAA ACCAGATGTT
ATTATTTCAT CTGGTGCGGC CGTTGCTGTC CCCTTCTTTT
ACATCGGAAA ACTATTTGGA GCAAAGACGA TTTATATTGA AGTATTTGAT CGAGTTAATA AATCTACATT
AACTGGAAAA CTAGTTTATC CCGTAACAGA TATTTTTATT
GTTCAGTGGG AAGAAATGAA GAAGGTATAT CCTAAATCTA TTAACTTGGG GAGTATTTTT TAATGATTTT
TGTAACAGTA GGAACTCATG AACAACAGTT TAATCGATTG
ATAAAAGAGA TTGATTTATT GAAAAAAAAT GGAAGTATAA CCGACGAAAT ATTTATTCAA ACAGGATATT
CTGACTATAT TCCAGAATAT TGCAAGTATA AAAAATTTCT
CAGTTACAAA GAAATGGAAC AATATATTAA CAAATCAGAA GTAGTTATTT GCCACGGAGG CCCCGCTACT
TTTATGAATT CATTATCCAA AGGAAAAAAA CAATTATTGT
TTCCTAGACA AAAAAAGTAT GGTGAACATG TAAATGATCA TCAAGTAGAG TTTGTAAGAA GAATTTTACA
AGATAATAAT ATTTTATTTA TAGAAAATAT AGATGATTTG
TTTGAAAAAA TTATTGAAGT TTCTAAGCAA ACTAACTTTA CATCAAATAA TAATTTTTTT TGTGAAAGAT
TAAAACAAAT AGTTGAAAAA TTTAATGAGG ATCAAGAAAA
TGAATAATAA AAAAGATGCA TATTTGATAA TGGCTTATCA TAATTTTTCT CAGATTTTAC TGGAGAGGGA
TACAGATATT ATCATCTTCT CTCAGGAGAA TGCACACCAT
TAGTTCCTTC AGAATACCTG TATAATTATT TTAAATATTC TCAGGATTTA TATGTTGAAT TTACAAAAGA
TGAGCAAAAA TATAAAGAAA ATAGGATATA TGAACGAGTT
AAATGTTACA GATTATTTCC TAATATATCA GAAAAAACTA TTGATAATGT ACTGTTTAGA ATTTTATTAA
GAATGTATCG AGCTTTTGAA TACTATTTAC AAAGATTGTT
GTTTATTGAT AGAATAAAAA ACATGGTCTA AGAATAAGAT TTGGTTCTAA TTGGGTTTCG CTTCCACATG
ATTTTGTGGC AATTCTTTTA TCAAATGAAA ACGAAACAGC
TTATTTATTT AAGTAATCTA AATGTCCAGA TGAACTATTT ATACAGACAA TTATAGAAAA ATATGAATTT
TCAAATAGAT TATCTAAATA TGGAAATTTA AGATATATAA
AGTGGAAAAA ATCAACATCT TCTCCTATTG TCTTTACAGA TGATTCTATT GATGAATTGC TAAATGCAAG
AAATTTAGGT TTTTTATTTG CTAGAAAGTT AAAAATAGAA
AATAAATCTA AATTTAAAGA AATTATTACT AAAAAATAAA ATAGTTGATT TTGTGAGAGT AATGTATGTT
TAAATTATTT AAATATGACC CGGAATATTT TATTTTTAAG
TACTTCTGGT TGATTATTTT TATTCCAGAG CAAAAGTATG TATTTTTATT AATTTTTATG AATTTAATTT
TATTTCATAT AAAATTTTTG AAAACTAAGC TAATATTAAA
AAATGAAATT TTATTGTTTT TATTATGGTC TATATTATGT TTTGTTTCAG TAGTCACAAG TATGTTTGTT
GAAATAAATT TTGAAAGATT ATTTGCAGAT TTTACTGCTC
CCATAATTTG GATTATTGCA ATAATGTATT ATAATTTGTA TTCATTTATA AATATTGATT ATAAAAAATT
AAAAAATAGT ATCTTTTTTA GTTTTTTAGT TTTATTAGGT
ATATCTGCAT TGTATATTAT TCAAAATGGG AAAGATATTG TATTTTTAGA CAGACACCTT ATAGGACTAG
ACTATCTTAT AACAGGCGTC AAAACAAGGT TGGTTGGCTT
TATGAACTAT CCTACGTTAA ATACCACTAC AATTATAGTT TCAATTCCGT TAATCTTTGC ACTTATAAAA
AATAAAATGC AACAATTTTT TTTCTTGTGT CTTGCTTTTA

DNA Serotype 1

FIG. 4A

TACCGATCTA TTTAAGTGGA TCGAGAATTG GTAGTTTATC GCTAGCAATA TTAATTATAT GCTTGTTATG
GAGATATATA GGTGGAAAAT TTGCTTGGAT AAAAAAGCTA
ATAGTAATAT TTGTAATACT ACTTATTATT TTAAATACTG AATTGCTTTA CCATGAAATT TTGGCTGTTT
ATAATTCTAG AGAATCAAGT AACGAAGCTA GATTTATTAT
TTATCAAGGA AGTATTGATA AAGTATTAGA AAACAATATT TTATTTGGAT ATGGAATATC CGAATATTCA
GTTACGGGAA CTTGGCTCGG AAGTCATTCA GGCTATATAT
CATTTTTTTA TAAATCAGGA ATAGTTGGGT TGATTTTACT GATGTTTTCT TTTTTTTATG TTATAAAAAA
AAGTTATGGA GTTAATGGGG AAACAGCACT ATTTTATTTT
ACATCATTAG CCATATTTTT CATATATGAA ACAATAGATC CGATTATTAT TATATTAGTA CTATTCTTTT
CTTCAATAGG TATTTGGAAT AATATAAATT TTAAAAAGGA
TATGGAGACA AAAAATGAAT GATTTAATTT CAGTTATTGT ACCAATTTAT AATGTCCAAG ATTATCTTGA
TAAATGTATT AACAGTATTA TTAACCAAAC ATATACTAAT
TTAGAGGTTA TTCTCGTAAA TGATGGAAGT ACTGATGATT CTGAGAAAAT TTGCTTAAAC TATATGAAGA
ACGATGGAAG AATTAAATAT TACAAGAAAA TTAATGGCGG
TCTAGCAGAT GCTCGAAATT TCGGACTAGA ACATGCAACA GGTAAATATA TTGCTTTTGT CGATTCTGAT
GACTATATAG AAGTTGCAAT GTTCGAGAGA ATGCATGATA
ATATAACTGA GTATAATGCC GATATAGCAG AGATAGATTT TTGTTTAGTA GACGAAAACG GGTATACAAA
GAAAAAAAGA AATAGTAATT TTCATGTCTT AACGAGAGAA
GAGACTGTAA AAGAATTTTT GTCAGGATCT AATATAGAAA ATAATGTTTG GTGCAAGCTT TATTCACGAG
ATATTATAAA AGATATAAAA TTCCAAATTA ATAATAGAAG
TATTGGTGAG GATTTGCTTT TTAATTTGGA GGTCTTGAAC AATGTAACAC GTGTAGTAGT TGATACTAGA
GAATATTATT ATAATTATGT CATTCGTAAC AGTTCGCTTA
TTAATCAGAA ATTCTCTATA AATAATATTG ATTTAGTCAC AAGATTGGAG AATTACCCCT TTAAGTTAAA
AAGAGAGTTT AGTCATTATT TTGATGCAAA AGTTATTAAA
GAGAAGGTTA AATGTTTAAA CAAAATGTAT TCAACAGATT GTTTGGATAA TGAGTTCTTG CCAATATTAG
AGTCTTATCG AAAAGAAATA CGTAGATATC CATTTATTAA
AGCGAAAAGA TATTTATCAA GAAAGCATTT AGTTACGTTG TATTTGATGA AATTTTCGCC TAAACTATAT
GTAATGTTAT ATAAGAAATT TCAAAAGCAG TAGAGGTAAA
AATGGATAAA ATTAGTGTTA TTGTTCCAGT TTATAATGTA GATAAATATT TAAGTAGTTG TATAGAAAGC
ATTATTAATC AAAATTATAA AAATATAGAA ATATTATTGA
TAGATGATGG CTCTGTAGAT GATTCTGCTA AAATATGCAA GGAATATGCA GAAAAAGATA AAAGAGTAAA
AATTTTTTTC ACTAATCATA GTGGAGTATC AAATGCTAGA
AATCATGGAA TAAAGCGGAG TACAGCTGAA TATATTATGT TTGTTGACTC TGATGATGTT GTTGATAGTA
GATTAGTAGA AAAATTATAT TTTAATATTA TAAAAAGTAG
AAGTGATTTA TCTGGTTGTT TGTACGCTAC TTTTTCAGAA AATATAAATA ATTTTGAAGT GAATAATCCA
AATATTGATT TTGAAGCAAT TAATACCGTG CAGGACATGG
GAGAAAAAAA TTTTATGAAT TTGTATATAA ATAATATTTT TTCTACTCCT GTTTGTAAAC TATATAAGAA
AAGATACATA ACAGATCTTT TTCAAGAGAA TCAATGGTTA
GGAGAAGATT TACTTTTTAA TCTGCATTAT TTAAAGAATA TAGATAGAGT TAGTTATTTG ACTGAACATC
TTTATTTTTA TAGGAGAGGT ATACTAAGTA CAGTAAATTC
TTTTAAAGAA GGTGTGTTTT TGCAATTGGA AAATTTGCAA AAACAAGTGA TAGTATTGTT TAAGCAAATA
TATGGTGAGG ATTTTGACGT ATCAATTGTT AAAGATACTA
TACGTTGGCA AGTATTTTAT TATAGCTTAC TAATGTTTAA ATACGGAAAA CAGTCTATTT TTGACAAATT
TTTAATTTTT AGAAATCTTT ATAAAAAATA TTATTTTAAC
TTGTTAAAAG TATCTAACAA AAATTCTTTG TCTAAAAATT TTTGTATAAG AATTGTTTCG AACAAAGTTT
TTAAAAAAAT ATTATGGTTA TAATAGGAAG ATATCATGGA
TACTATTAGT AAAATTTCTA TAATTGTACC TATATATAAT GTAGAAAAAT ATTTATCTAA ATGTATAGAT
AGCATTGTAA ATCAGACCTA CAAACATATA GAGATTCTTC
TGGTGAATGA CGGTAGTACG GATAATTCGG AAGAAATTTG TTTAGCATAT GCGAAGAAAG ATAGTCGCAT
TCGTTATTTT AAAAAAGAGA ACGGCGGGCT ATCAGATGCC
CGTAATTATG GCATAAGTCG CGCCAAGGGT GACTACTTAG CTTTTATAGA CTCAGATGAT TTTATTCATT
CGGAGTTCAT CCAACGTTTA CACGAAGCAA TTGAGAGAGA
GAATGCCCTT GTGGCAGTTG CTGGTTATGA TAGGGTAGAT GCTTCGGGGC ATTTCTTAAC AGCAGAGCCG
CTTCCTACAA ATCAGGCTGT TCTGAGCGGC AGGAATGTTT
GTAAAAAGCT GCTAGAGGCG GATGGTCATC GCTTTGTGGT GGCCTGTAAT AAACTCTATA AAAAAGAACT
ATTTGAAGAT TTTCGATTTG AAAAGGGTAA GATTCATGAA
GATGAATACT TCACTTATCG CTTGCTCTAT GAGTTAGAAA AAGTTGCAAT AGTTAAGGAG TGCTTGTACT
ATTATGTTGA CCGAGAAAAT AGTATCACAA CTTCTAGCAT
GACTGACCAT CGCTTCCATT GCCTACTGGA ATTTCAAAAT GAACGAATGG ACTTCTATGA AAGTAGAGGA
GATAAAGAGC TCTTACTAGA GTGTTATCGT TCATTTTTAG
CCTTTGCTGT TTTGTTTTTA GGCAAATATA ATCATTGGTT GAGCAAACAG CAAAAGAAGC TT

DNA Serotype 1

FIG. 4B

SEQ ID NO:29

RQTKLALFDM IAVAISAILT SHIPNADLNR SGIFIIMMVH YFAFFISRMP VEFEYRGNLI
EFEKTFNYSI IFAIFLTAVS FLLENNFALS RRGAVYFTLI NFVLVYLFNV
IIKQFKDSFL FSTIYQKKTI LITTAERWEN MQVLFESHKQ IQKNLVALVV LGTEIDKINL
SLPLYYSVEE AIEFSTREVV DHVFINLPSE FLDVKQFVSD FELLGIDVSV
DINSFGFTAL KNKKIQLLGD HSIVTFSTNF YKPSHIMMKR LLDILGAVVG LIICGIVSIL
LVPIIRRDGG PAIFAQKRVG QNGRIFTFYK FRSMYVDAEE RKKDLLSQNQ
MQGWVCFKMG KTILELLQLD ISYAKTSLDE LPQFYNVLIG DMSLVGTRPP TVDEFEKYTP
GQKRRLSFKP GITGLWQVSG RSNITDFDDV VRLDLAYIDN WTIWSDIKIL
LKTVKVVLLR EGSK

CPS1E

DNA Serotype 1 **SEQ ID NO:30**

FIG. 4C

MKVCLVGSSG GHLTHLYLLK PFWKEEERFW VTFDKEDARS LLKNEKMYPC YFPTNRNLIN
LVKNTFLAFK ILRDEKPDVI ISSGAAVAVP FFYIGKLFGA KTIYIEVFDR
VNKSTLTGKL VYPVTDIFIV QWEEMKKVYP KSINLGSIF

CPS1F

DNA Serotype 1 **SEQ ID NO:31**

FIG. 4D

MIFVTVGTHE QQFNRLIKEI DLLKKNGSIT DEIFIQTGYS DYIPEYCKYK KFLSYKEMEQ
YINKSEVVIC HGGPATFMNS LSKGKKQLLF PRQKKYGEHV NDHQVEFVRR
ILQDNNILFI ENIDDLFEKI IEVSKQTNFT SNNNFFCERL KQIVEKFNED QENE

CPS1G

DNA Serotype 1 **SEQ ID NO:32**

FIG. 4E

MFKLFKYDPE YFIFKYFWLI IFIPEQKYVF LLIFMNLILF HIKFLKTKLI LKNEILLFLL
WSILCFVSVV TSMFVEINFE RLFADFTAPI IWIIAIMYYN LYSFINIDYK
KLKNSIFFSF LVLLGISALY IIQNGKDIVF LDRHLIGLDY LITGVKTRLV GFMNYPTLNT
TTIIVSIPLI FALIKNKMQQ FFFLCLAFIP IYLSGSRIGS LSPLAILIIC
LLWRYIGGKF AWIKKLIVIF VILLIILNTE LLYHEILAVY NSRESSNEAR FIIYQGSIDK
VLENNILFGY GISEYSVTGT WLGSHSGYIS FFYKSGIVGL ILLMFSFFYV
IKKSYGVNGE TALFYFTSLA IFFIYETIDP IIIILVLFFS SIGIWNNINF KKDMETKNE

CPS1H

DNA Serotype 1

SEQ ID NO:33

FIG. 4F

MNDLISVIVP IYNVQDYLDK CINSIINQTY TNLEVILVND GSTDDSEKIC LNYMKNDGRI
KYYKKINGGL ADARNFGLEH ATGKYIAFVD SDDYIEVAMF ERMHDNITEY
NADIAEIDFC LVDENGYTKK KRNSNFHVLT REETVKEFLS GSNIENNVWC KLYSRDIIKD
IKFQINNRSI GEDLLFNLEV LNNVTRVVVD TREYYYNYVI RNSSLINQKF
SINNIDLVTR LENYPFKLKR EFSHYFDAKV IKEKVKCLNK MYSTDCLDNE FLPILESYRK
EIRRYPFIKA KRYLSRKHLV TLYLMKFSPK LYVMLYKKFQ KQ

CPS1I

DNA Serotype 1

SEQ ID NO:34

FIG. 4G

MDKISVIVPV YNVDKYLSSC IESIINQNYK NIEILLIDDG SVDDSAKICK EYEKDKRVKI
FFTNHSGVSN ARNHGIKRST AEYIMFVDSD DVVDSRLVEK LYFNIIKSRS
DLSGCLYATF SENINNFEVN NPNIDFEAIN TVQDMGEKNF MNLXXNNIFS TPVCXLYQKR
YITDLFQENQ WLGEDLLFNL HYLKNIDRVS YLTEHLYFYR RGILSTVNSF
KEGVFLQLEN LQKQVIVLFK QIYGEDFDVS IVKDTIRWQV FYYSLLMFKY GKQSIFDKFL
IFRNLYKKYY FNLLKVSNKN SLSKNFCIRI VSNKVFKKIL WL

CPS1J

DNA Serotype 1

SEQ ID NO:35

FIG. 4H

MDTISKISII VPIYNVEKYL SKCIDSIVNQ TYKHIEILLV NDGSTDNSEE ICLAYAKKDS
RIRYFKKENG GLSDARNYGI SRAKGDYLAF IDSDDFIHSE FIQRLHEAIE
RENALVAVAG YDRVDASGHF LTAEPLPTNQ AVLSGRNVCK KLLEADGHRF VVACNKLYKK
ELFEDFRFEK GKIHEDEYFT YRLLYELEKV AIVKECLYYY VDRENSITTS
SMTDHRFHCL LEFQNERMDF YESRGDKELL LECYRSFLAF AVLFLGKYNH WLSKQQKK

CPS1K

DNA Serotype 1

SEQ ID NO:36

FIG. 4I

AAGCTTATCG TCAAGGTGTT CGCTATATCG TGGCGACATC TCATAGACGA AAAGGGATGT
TTGAAACACC AGAAAAAGTT ATCATGACTA ACTTTCTTCA ATTTAAAGAC
GCAGTAGCAG AAGTTTATCC TGAAATACGA TTGTGCTATG GTGCTGAATT GTATTATAGT
AAAGATATAT TAAGCAAACT TGAAAAAAAG AAAGTACCCA CACTTAATGG
CTCGCGCTAT ATTCTTTTGG AGTTCAGTAG TGATACTCCT TGGAAAGAGA TTCAAGAAGC
AGTGAACGAA GTGACGCTAC TTGGGCTAAC TCCCGTACTT GCCCATATAG
AACGATATGA CGCCCTAGCG TTTCATGCAG AGAGAGTAGA AGAGTTAATT GACAAGGGAT
GCTATACTCA GGTAAATAGT AATCATGTGC TGAAGCCCAC TTTAATTGGT
GATCGAGCAA AAGAATTTAA AAAACGTACT CGGTATTTTT TAGAGCAGGA TTTAGTACAT
TGTGTTGCTA GCGATATGCA TAATTTATCT AGTAGACCTC CGTTTATGAG
GGAGGCTTAT AAGTTGCTAA CAGAGGAATT TGGCAAAGAT AAAGCGAAAG CGTTGCTAAA
AAAGAATCCT CTTATGCTAT TAAAAAACCA GGCGATTTAA ACTGGTTACT
CTAGATTGTG GAGAGAAAAA TGGATTTAGG AACTGTTACT GATAAACTGT TAGAACGCAA
CAGTAAACGA TTGATACTCG TGTGCATGGA TACGTGTCTT CTTATAGTTT
CCATGATTTT GAGCAGACTG TTTTTGGATG TTATTATTGA CATACCAGAT GAACGCTTCA
TTCTTGCAGT TTTATTCGTA TCAATTTTAT ATTTGATTCT ATCGTTTAGA
TTAAAAGTCT TTTCATTAAT TACGCGTTAC ACAGGGTATC AGAGTTATGT AAAAATAGGA
CTTAGTTTAA TATCTGCGCA TTCATTGTTT TTAATTATCT CAATGGTGTT
GTGGCAGGCT TTTAGTTATC GTTTCATCTT AGTATCCTTA TTTTTGTCGT ATGTAATGCT
CATTACTCCG AGGATTGTTT GGAAAGTCTT ACATGAGACG AGAAAAAATG
CTATCCGTAA GAAGGATAGC CCACTAAGAA TCTTAGTAGT AGGTGCTGGA GATGGTGGTA
ATATTTTTAT CAATACTGTC AAAGATCGAA AATTGAATTT TGAAATTGTC
GGTATCGTTG ATCGTGATCC AAATAAACTT GGAACATTTA TCCGTACGGC TAAAGTTTTA
GGAAACCGTA ATGATATTCC ACGACTGGTA GAGGAATTAG CTGTTGACCA
AGTGACGATT GCCATCCCTT CTTTAAATGG TAAGGAGCGA GAGAAGATTG TTGAAATCTG
TAACACTACA GGAGTGACCG TCAATAATAT GCCGAGTATT GAAGACATTA
TGGCGGGGAA CATGTCTGTC AGTGCCTTTC AGGAAATTGA CGTAGCAGAC CTTCTTGGTC
GACCAGAGGT TGTTTTGGAT CAGGATGAAT TGAATCAGTT TTTCCAAGGG
AAAACAATCC TTGTCACAGG AGCAGGTGGC TCTATCGGTT CAGAGCTATG TCGTCAAATT
GCTAAGTTTA CGCCTAAACG CTTGTTGTTG CTTGGACATG GAGAAAATTC
AATCTATCTC ATTCATCGAG AGTTACTGGA AAAGTACCAA GGTAAGATTG AGTTGGTCCC
TCTCATTGCA GATATTCAAG ATAGAGAATT GATTTTTAGC ATAATGGCTG
AATATCAACC CGATGTTGTT TATCATGCTG CAGCACATAA GCATGTTCCT TTGATGGAAT
ATAATCCACA TGAAGCAGTG AAGAATAATA TTTTTGGAAC GAAGAATGTG
GCTGAGGCGG CTAAAACTGC AAAGGTTGCC AAATTTGTTA TGGTTTCAAC AGATAAAGCT
GTTAATCCAC CAAATGTCAT GGGAGCGACT AAACGTGTTG CAGAAATGAT
TGTTACAGGT TTAAACGAGC CAGGTCAGAC TCAATTTGCG GCAGTCCGGT TTGGGAATGT
TCTAGGTAGT CGTGGAAGTG TTGTTCCGCT ATTCAAAGAG CAAATTAGAA
AAGGTGGACC TGTTACGGTT ACCGACTTTA GGATGACTCG TTATTTCATG ACGATTCCTG
AGGCAAGTCG TTTGGTTATC CAAGCTGGAC ATTTGGCAAA AGGTGGAGAA
ATATTTGTCT TGGATATGGG CGAGCCAGTA CAAATCCTGG AATTGGCAAG AAAAGTTATC
TTGTTAAGTG GACACACAGA GGAAGAAATC GGGATTGTAG AATCTGGAAT
CAGACCAGGC GAGAAACTCT ACGAGGAATT ATTATCAACA GAAGAACGTG TCAGCGAACA
GATTCATGAA AAAATATTTG TGGGTCGCGT TACAAATAAG CAGTCGGACA
TTGTCAATTC ATTTATCAAT GGATTACTCC AAAAAGATAG AAATGAATTA AAAAATATGT
TGATTGAATT TGCAAAACAA GAATAAGAAA GTAAAAAATA TTTTTACTTT
CCTAGAGTTT AAACGATGTT TAAGTTCTAG GAAGGTTAGA ATACCTAATT AACAACAATA
TTACTATTTA TTAAGAGTCA GATAATAGCA ACTAAGTGCT ACAAACTATC
TTTATAATAA GTATATTTGG TCAAAAGGGA GATGTGAAAT GTATCCAATT TGTAAACGTA
TTTTAGCAAT TATTATCTCA GGGATTGCTA TTGTTGTTCT GAGTCCAATT
TTATTATTGA TTGCATTGGC AATTAAATTA GATTCTAAAG GTCCGGTATT ATTTAAACAA
AAGCGGGTTG GTAAAAACAA GTCATACTTT ATGATTTATA AATTCCGTTC
TATGTACGTT GACGCACCAA GTGATATGCC GACTCATCTA TTAAAGGATC CTAAGGCGAT
GATTACCAAG GTGGGCGCGT TTCTCAGAAA AACAAGTTTA GATGAACTGC
CACAGCTTTT TAATATTTTT AAAGGTGAAA TGGCGATTGT TGGTCCACGC CCAGCCTTAT
GGAATCAATA TGACTTAATT GAAGAGCGAG ATAAATATGG TGCAAATGAT
ATTCGTCCTG GACTAACCGG TTGGGCTCAA ATTAATGGTC GTGATGAATT GGAAATTGAT
GAAAAGTCAA AATTAGATGG ATATTATGTT CAAAATATGA GTCTAGGTTT
GGATATTAAA TGTTTCTTAG GTACATTCCT CAGTGTAGCC AGAAGCGAAG GTGTTGTTGA
AGGTGGAACA GGGCAGAAAG GAAAAGGATG AAATTTTCAG TATTAATGTC
GGTCTATGAG AAAGAAAAAC CAGAGTTTCT TAGGGAATCT TTGGAAAGCA TCCTTGTCAA
TCAAACAATG ATTCCAACGG AGGTTGTCTT GGTAGAGGAT GGGCCACTCA
ATCAGAGCTT ATATAGTATT TTAGAAGAAT TTAAAAGTCG ATTTTCATTT TTTAAAACGA
TAGCCTTGGA AAAGAATTCG GGTTTAGGAA TTGCACTGAA TGAAGGTTTG
AAACATTGTA ATTATGAGTG GGTTTGCACG AAATGGATTC TGATGATGTT GCATATACAT
ACACGTTTTG AAAAGCAAGT TAACTTTATA AAACAAAACC CGACTATAGA

DNA Serotype 9

FIG. 5A

TATTGAGATA GATGAGTTCT TAAATTCTAC TAGTGAAATA GTTTCTCATA AAAATGTTCC
AACCCAGCAC GATGAAATAT TAAAGATGGC AAGGCGGGAG AAATCCATGT
GCCACATGAC TGTAATGTTT AAAAAGAAAA GTGTCGAGAG AGCAGGGGGG TATCAAACAC
TTCCGTACGT AGAAGATTAT TTCCTTTGGG TGCGCATGAT TGCTTCAGGA
TCGAAATTTG CAAACATTGA TGAAACACTA GTTCTTGCAC GTGTTGGAAA TGGGATGTTC
AATAGGAGGG GGAACAGAGA ACAAATTAAC AGTTGGACAT TACTAATTGA
ATTTATGTTA GCTCAAGGAA TTGTTACACC ACTAGATGTA TTTATTAATC AAATTTACAT
TAGGGTCTTT GTTTATATGC CAACTTGGAT AAAGAAACTC ATTTATGGAA
AAATCTTAAG GAAATAGTAT GATTACAGTA TTGATGGCTA CATATAATGG AAGCCCATTT
ATAATAAAAC AGTTAGATTC AATTCGAAAT CAAAGTGTAT CAGCAGACAA
AGTTATTATT TGGGATGATT GCTCGACAGA TGATACAATA AAAATAATAA AAGATTATAT
AAAAAAATAT TCTTTGGATT CATGGGTTGT CTCTCAAAAT AAATCTAATC
AGGGGCATTA TCAAACATTT ATAAATTTGA CAAAGTTAGT TCAGGAAGGA ATAGTCTTTT
TTTCAGATCA AGATGATATT TGGGACTGTC ATAAAATTGA GACAATGCTT
CCAATCTTTG ACAGAGAAAA TGTATCAATG GTGTTTTGCA AATCCAGATT GATTGATGAA
AACGGAAATA TTATCAGTAG CCCAGATACT TCGGATAGAA TCAATACGTA
CTCTCTAGA

DNA Serotype 9 **SEQ ID NO:37**

FIG. 5B

AYRQGVRYIV ATSHRRKGMF ETPEKVIMTN FLQFKDAVAE VYPEIRLCYG AELYYSKDIL
SKLEKKKVPT LNGSRYILLE FSSDTPWKEI QEAVNEVTLL GLTPVLAHIE
RYDALAFHAE RVEELIDKGC YTQVNSNHVL KPTLIGDRAK EFKKRTRYFL EQDLVHCVAS
DMHNLSSRPP FMREAYKLLT EEFGKDKAKA LLKKNPLMLL KNQAI

CPS9D

DNA Serotype 9

SEQ ID NO:38

FIG. 5C

MDLGTVTDKL LERNSKRLIL VCMDTCLLIV SMILSRLFLD VIIDIPDERF ILAVLFVSIL
YLILSFRLKV FSLITRYTGY QSYVKIGLSL ISAHSLFLII SMVLWQAFSY
RFILVSLFLS YVMLITPRIV WKVLHETRKN AIRKKDSPLR ILVVGAGDGG NIFINTVKDR
KLNFEIVGIV DRDPNKLGTF IRTAKVLGNR NDIPRLVEEL AVDQVTIAIP
SLNGKEREKI VEICNTTGVT VNNMPSIEDI MAGNMSVSAF QEIDVADLLG RPEVVLDQDE
LNQFFQGKTI LVTGAGGSIG SELCRQIAKF TPKRLLLLGH GENSIYLIHR
ELLEKYQGKI ELVPLIADIQ DRELIFSIMA EYQPDVVYHA AAHKHVPLME YNPHEAVKNN
IFGTKNVAEA AKTAKVAKFV MVSTDKAVNP PNVMGATKRV AEMIVTGLNE
PGQTQFAAVR FGNVLGSRGS VVPLFKEQIR KGGPVTVTDF RMTRYFMTIP EASRLVIQAG
HLAKGGEIFV LDMGEPVQIL ELARKVILLS GHTEEEIGIV ESGIRPGEKL
YEELLSTEER VSEQIHEKIF VGRVTNKQSD IVNSFINGLL QKDRNELKNM LIEFAKQE

CPS9E

DNA Serotype 9

SEQ ID NO:39

FIG. 5D

MYPICKRILA IIISGIAIVV LSPILLLIAL AIKLDSKGPV LFKQKRVGKN KSYFMIYKFR
SMYVDAPSDM PTHLLKDPKA MITKVGAFLR KTSLDELPQL FNIFKGEMAI
VGPRPALWNQ YDLIEERDKY GANDIRPGLT GWAQINGRDE LEIDEKSKLD GYYVQNMSLG
LDIKCFLGTF LSVARSEGVV EGGTGQKGKG

CPS9F

DNA Serotype 9

SEQ ID NO:40

FIG. 5E

MKFSVLMSVY EKEKPEFLRE SLESILVNQT MIPTEVVLVE DGPLNQSLYS ILEEFKSRFS
FFKTIALEKN SGLGIALNEG LKHCNYEWVC TKWILMMLHI HTRFEKQVNF
IKQNPTIDIE IDEFLNSTSE IVSHKNVPTQ HDEILKMARR EKSMCHMTVM FKKKSVERAG
GYQTLPYVED YFLWVRMIAS GSKFANIDET LVLARVGNGM FNRRGNREQI
NSWTLLIEFM LAQGIVTPLD VFINQIYIRV FVYMPTWIKK LIYGKILRK

CPS9G

DNA Serotype 9

SEQ ID NO:41

FIG. 5F

MITVLMATYN GSPFIIKQLD SIRNQSVSAD KVIIWDDCST DDTIKIIKDY IKKYSLDSWV
VSQNKSNQGH YQTFINLTKL VQEGIVFFSD QDDIWDCHKI ETMLPIFDRE
NVSMVFCKSR LIDENGNIIS SPDTSDRINT YSL

CPS9H

DNA Serotype 9

SEQ ID NO:42

FIG. 5G

CTGCAGCACA TAAGCATGTT CCATTGATGG AATATAATCC ACATGAAGCA GTGAAGAATA
ATATTTTTGG AACGAAGAAT GTGGCTGAGG CGGCTAAAAC TGCAAAGGTT
GCCAAATTTG TTATGGTTTC AACAGATAAA GCTGTTAATC CGCCAAATGT CATGGGAGCG
ACTAAACGTG TTGCAGAAAT GATTGTAACA GGTTTAAACG AGCCAGGTCA
GACTCAATTT GCGGCAGTCC GTTTTGGGAA TGTTCTAGGT AGTCGTGGAA GTGTTGTTCC
GCTATTCAAA GAGCAAATTA GAAAAGGTGG ACCTGTTACG GTTACCGACT
TTAGGATGAC TCGTTATTTC ATGACGATTC CTGAGGCAAG TCGTTTGGTT ATCCAAGCTG
GACATTTGGC AAAAGGTGGA GAAATCTTTG TCTTGGATAT GGGTGAGCCA
GTACAAATCC TGGAATTGGC AAGAAAAGTT ATCTTGTTAA GCGGACATAC AGAGGAAGAA
ATCGGGATTG TAGAATCTGG AATCAGACCA GGCGAGAAAC TCTACGAGGA
ATTGTTATCA ACAGAAGAAC GTGTCAGCGA ACAGATTCAT GAAAAAATAT TTGTGGGTCG
CGTTACAAAT AAGCAGTCGG ACATTGTCAA TTCATTTATC AATGGATTAC
TCCAAAAAGA TAGAAATGAA TTAAAAGATA TGTTGATTGA ATTTGCAAAA CAAGAATAAG
AAAGTAAAAA ATATTTTTAC TTTCCTAGAG TTTAAACGAT GTTTAAGTTC
TAGGAAGGTT GGAATTGCTT TCGTGGAGGT GATAGATAGA AACCTATATA TTTGTAGAAG
AAAGGATATT AAACTAAAGG TGAATCGGAA CATAAAGTTT AGATAGAGTT
GGTATTTAAT GCCAAACAGG TGAATGCAAC CTCTCGCTCG TTACTAAGCA GGAGATAGTA
AAGTTGCTTG AAAGAGAGTT TGTTAATCAG TATAAGTAGG CTAAAGTGAG
AATATATATC TATTATTATC GGTAATGATA CTATTATTGA GAATTATTGT AGTGGGGATA
AAAATAATTT TTGGTGATTT TATCGTCCGA CTTAAAGGTG GGTTAAAAAA
GTACTTATAT TCTTTTAGAA TTGATGAAAA ATATGGGGGA ATATAATATT TATAGGAGAT
ACGATGACTA GAGTAGAGTT GATTACTAGA GAATTTTTTA AGAAGAATGA
AGCAACCAGT AAATATTTTC AGAAGATAGA ATCAAGAAGA GGTGAATTAT TTATTAAATT
CTTTATGGAT AAGTTACTTG CGCTTATCCT ATTATTGCTA TTATCCCCAG
TAATCATTAT ATTAGCTATT TGGATAAAAT TAGATAGTAA GGGGCCAATT TTTTATCGCC
AAGAACGTGT TACGAGATAT GGTCGAATTT TTAGAATATT TAAGTTTAGA
ACAATGATTT CTGATGCGGA TAAAGTCGGA AGTCTTGTCA CAGTCGGTCA AGATAATCGT
ATTACGAAAG TCGGTCACAT TATCAGAAAA TATCGGCTGG ACGAAGTGCC
CCAACTTTTT AATGTTTTAA TGGGGGATAT GAGCTTTGTA GGTGTAAGAC CAGAAGTACA
AAAATATGTA AATCAGTATA CTGATGAAAT GTTTGCGACG TTACTTTTAC
CTGCAGGAAT TACTTCACCA GCGAGTATTG CATATAAGGA TGAAGATATT GTTTTAGAAG
AATATTGTTC TCAAGGCTAT AGTCCTGATG AAGCATATGT TCAAAAAGTA
TTACCAGAAA AAATGAAGTA CAATTTGGAA TATATCAGAA ACTTTGGAAT TATTTCTGAT
TTTAAAGTAA TGATTGATAC AGTAATTAAA GTAATAAAAT AGGAGATTAA
AATGACAAAA AGACAAAATA TTCCATTTTC ACCACCAGAT ATTACCCAAG CTGAAATTGA
TGAAGTTATT GACACACTAA AATCTGGTTG GATTACAACA GGACCAAAGA
CAAAAGAGCT AGAACGTCGG CTATCAGTAT TTACAGGAAC CAATAAAACT GTGTGTTTAA
ATTCTGCTAC TGCAGGATTG GAACTAGTCT TACGAATTCT TGGTGTTGGA
CCCGGAGATG AAGTTATTGT TCCTGCTATG ACCTATACTG CCTCATGTAG TGTCATTACT
CATGTAGGAG CAACTCCTGT GATGGTTGAT ATTCAAAAAA ACAGCTTTGA
GATGGAATAT GATGCTTTGG AAAAAGCGAT TACTCCGAAA ACAAAAGTTA TCATTCCTGT
TGATCTAGCT GGTATTCCTT GTGATTATGA TAAGATTTAT ACCATCGTAG
AAAACAAACG CTCTTTGTAT GTTGCTTCTG ATAATAAATG GCAGAAACTT TTTGGGCGAG
TTATTATCCT ATCTGATAGT GCACACTCAC TAGGTGCTAG TTATAAGGGA
AAACCAGCGG GTTCCCTAGC AGATTTTACC TCATTTTCTT TCCATGCAGT TAAGAATTTT
ACAACTGCTG AAGGAGGTAG TGTGACATGG AGATCACATC CTGATTTGGA
TGACGAAGAG ATGTATAAAG AGTTTCAGAT TTACTCTCTT CATGGTCAGA CAAAGGATGC
ATTAGCTAAG ACACAATTAG GGTCATGGGA ATATGACATT GTTATTCCTG
GTTACAAGTG TAATATGACA GATATTATGG CAGGTATCGG TCTTGTGCAA TTAGAACGTT
ACCCATCTTT GTTGAATCGT CGCAGAGAAA TCATTGAGAA ATACAATGCT
GGCTTTGAGG GGACTTCGAT TAAGCCGTTG GTACACCTGA CGGAAGATAA ACAATCGTCT
ATGCACTTGT ATATCACGCA TCTACAAGGC TATACTTTAG AACAACGAAA
TGAAGTCATT CAAAAAATGG CTGAAGCAGG TATTGCGTGC AATGTTCACT ACAAACCATT
ACCTCTTCTC ACAGCCTACA AGAATCTTGG TTTTGAAATG AAAGATTTTC
CGAATGCCTA TCAGTATTTT GAAAATGAAG TTACACTGCC TCTTCATACC AACTTGAGTG
ATGAAGATGT GGAGTATGTG ATAGAAATGT TTTTAAAAAT TGTTAGTAGA
GATTAGTTAT TTTGGAAGGA GATATGGTGG AAAGAGATAT GGTGGAAAGA GACACGTTGG
TATCTATAAT AATGCCCTCG TGGAATACAG CTAAGTATAT ATCTGAATCA
ATCCAGTCAG TGTTGGACCA AACACACCAA AATTGGGAAC TTATAATCGT TGATGATTGT
TCTAATGACG AAACTGAAAA AGTTGTTTCG CATTTCAAAG ATTCAAGAAT

DNA Serotype 7

FIG. 6A

AAAGTTTTTT AAAAATTCGA ATAATTTAGG GGCAGCTCTA ACACGAAATA AGGCACTAAG
AAAAGCTAGA GGTAGGTGGA TTGCGTTCTT GGATTCAGAT GATTTATGGC
ACCCGAGTAA GCTAGAAAAA CAGCTTGAAT TTATGAAAAA TAATGGATAT TCATTTACTT
ATCACAATTT TGAAAAGATT GATGAATCTA GTCAGTCTTT ACGTGTCCTG
GTGTCAGGAC CAGCAATTGT GACTAGAAAA ATGATGTACA ATTACGGCTA TCCAGGGTGT
TTGACTTTCA TGTATGATGC AGACAAAATG GGTTTAATTC AGATAAAAGA
TATAAAGAAA AATAACGATT ATGCGATATT ACTTCAATTG TGTAAGAAGT ATGACTGTTA
TCTTTTAAAT GAAAGTTTAG CTTCGTATCG AATTAGAAAA AA

DNA Serotype 7 **SEQ ID NO:43**

FIG. 6B

AAHKHVPLME YNPHEAVKNN IFGTKNVAEA AKTAKVAKFV MVSTDKAVNP PNVMGATKRV
AEMIVTGLNE PGQTQFAAVR FGNVLGSRGS VVPLFKEQIR KGGPVTVTDF
RMTRYFMTIP EASRLVIQAG HLAKGGEIFV LDMGEPVQIL ELARKVILLS GHTEEEIGIV
ESGIRPGEKL YEELLSTEER VSEQIHEKIF VGRVTNKQSD IVNSFINGLL
QKDRNELKDM LIEFAKQE

CPS7E

DNA Serotype 7

SEQ ID NO:44

FIG. 6C

MTRVELITRE FFKKNEATSK YFQKIESRRG ELFIKFFMDK LLALILLLLL SPVIIILAIW
IKLDSKGPIF YRQERVTRYG RIFRIFKFRT MISDADKVGS LVTVGQDNRI
TKVGHIIRKY RLDEVPQLFN VLMGDMSFVG VRPEVQKYVN QYTDEMFATL LLPAGITSPA
SIAYKDEDIV LEEYCSQGYS PDEAYVQKVL PEKMKYNLEY IRNFGIISDF
KVMIDTVIKV IK

CPS7F

DNA Serotype 7

SEQ ID NO:45

FIG. 6D

MTKRQNIPFS PPDITQAEID EVIDTLKSGW ITTGPKTKEL ERRLSVFTGT NKTVCLNSAT
AGLELVLRIL GVGPGDEVIV PAMTYTASCS VITHVGATPV MVDIQKNSFE
MEYDALEKAI TPKTKVIIPV DLAGIPCDYD KIYTIVENKR SLYVASDNKW QKLFGRVIIL
SDSAHSLGAS YKGKPAGSLA DFTSFSFHAV KNFTTAEGGS VTWRSHPDLD
DEEMYKEFQI YSLHGQTKDA LAKTQLGSWE YDIVIPGYKC NMTDIMAGIG LVQLERYPSL
LNRRREIIEK YNAGFEGTSI KPLVHLTEDK QSSMHLYITH LQGYTLEQRN
EVIQKMAEAG IACNVHYKPL PLLTAYKNLG FEMKDFPNAY QYFENEVTLP LHTNLSDEDV
EYVIEMFLKI VSRD

CPS7G

DNA Serotype 7

SEQ ID NO:46

FIG. 6E

MVERDMVERD TLVSIIMPSW NTAKYISESI QSVLDQTHQN WELIIVDDCS NDETEKVVSH
FKDSRIKFFK NSNNLGAALT RNKALRKARG RWIAFLDSDD LWHPSKLEKQ
LEFMKNNGYS FTYHNFEKID ESSQSLRVLV SGPAIVTRKM MYNYGYPGCL TFMYDADKMG
LIQIKDIKKN NDYAILLQLC KKYDCYLLNE SLASYRIRK

CPS7H

DNA Serotype 7

SEQ ID NO:47

FIG. 6F

```
                                                  *
Cps2J     MEKVSIIVPI FNTEKYLREC LDSIISQSYT NLEILLIDDG SSDSSTDICL EYAEQDGRIK    60
          |   ||||||  | | ||  |   ||  | |    |||| ||   | | |  |||  ||  | ||
Cps2K     MINISIIVPI YNVEQYLSKC INSIVNQTYK HIEILLVNDG STDNSEEICL AYAKKDSRIR    60

                                        *
Cps2J     LFRLPNGGVS NARNYGIKNS TANYIMFVDS DDIVDGNIVE SLYTCLKEND SDLSGGLLAT   120
           |   |||  |  ||||||       |  | ||  ||          |     |     |  |
Cps2K     YFKKENGGLS DARNYGISRA KGDYLAFIDS DDFIHSEFIQ RL_HEAIERE NAL__VAVAG   117
```

Cps2J
(SEQ ID NO:51)

Cps2K
(SEQ ID NO:52)

FIG. 7

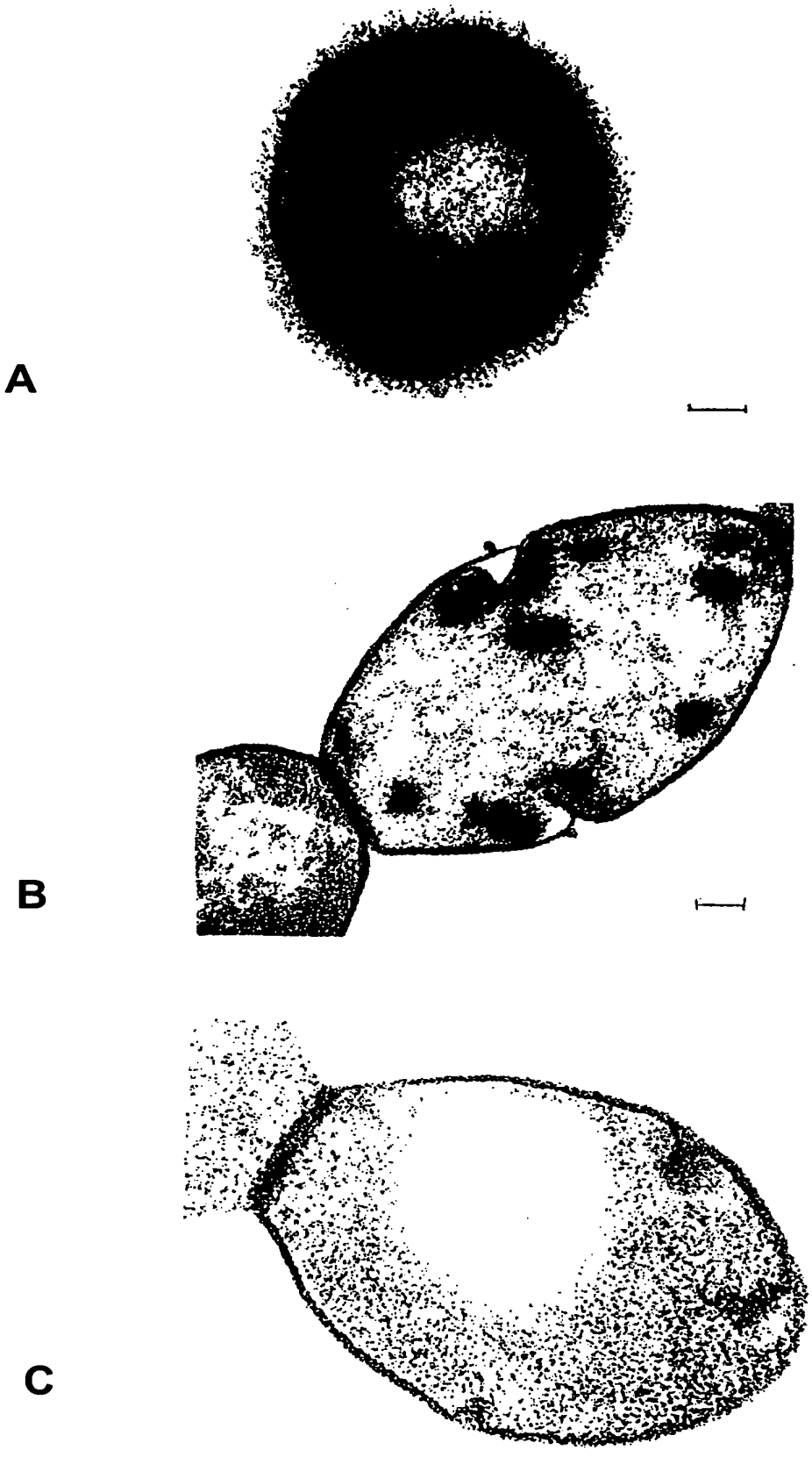

FIG. 8

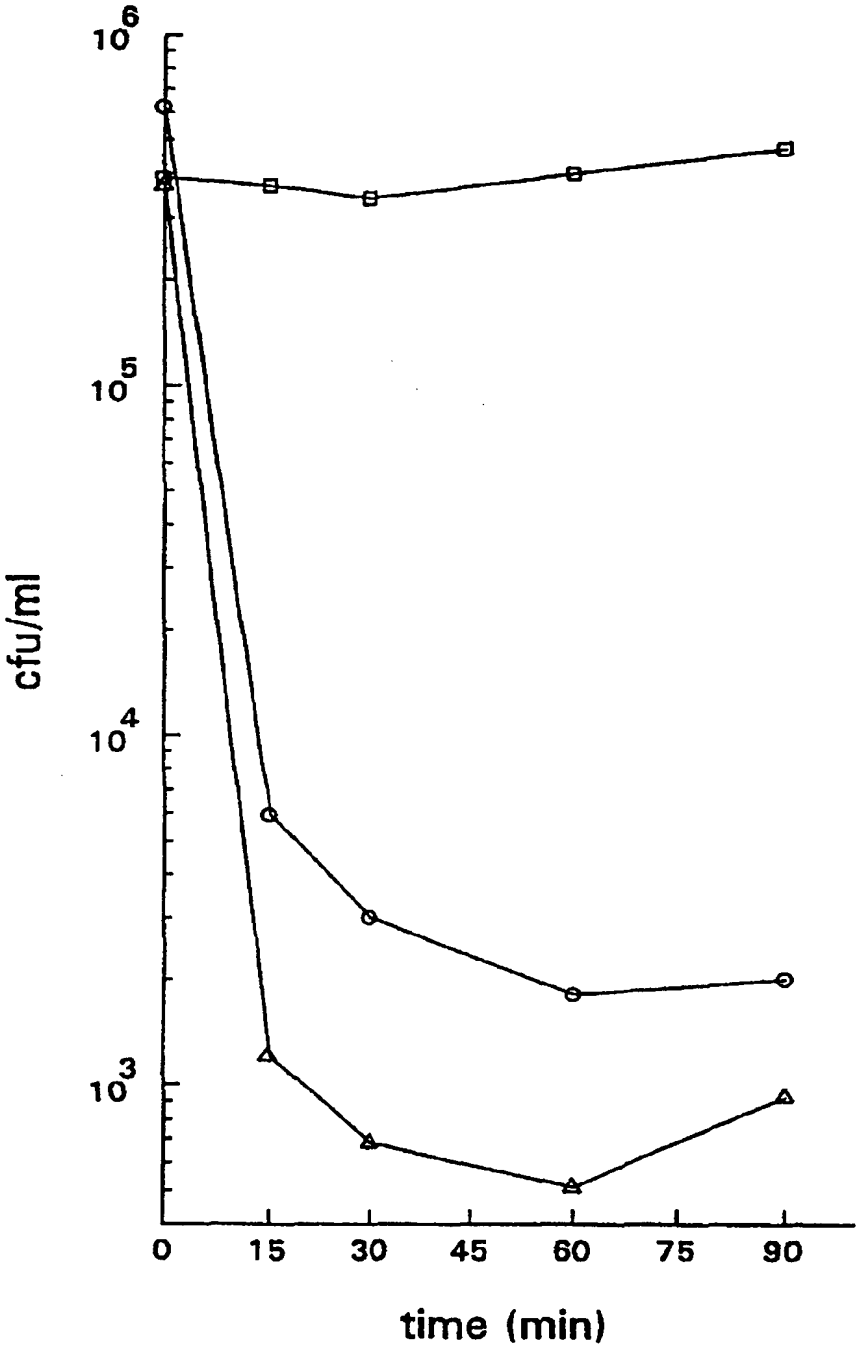

FIG. 9A

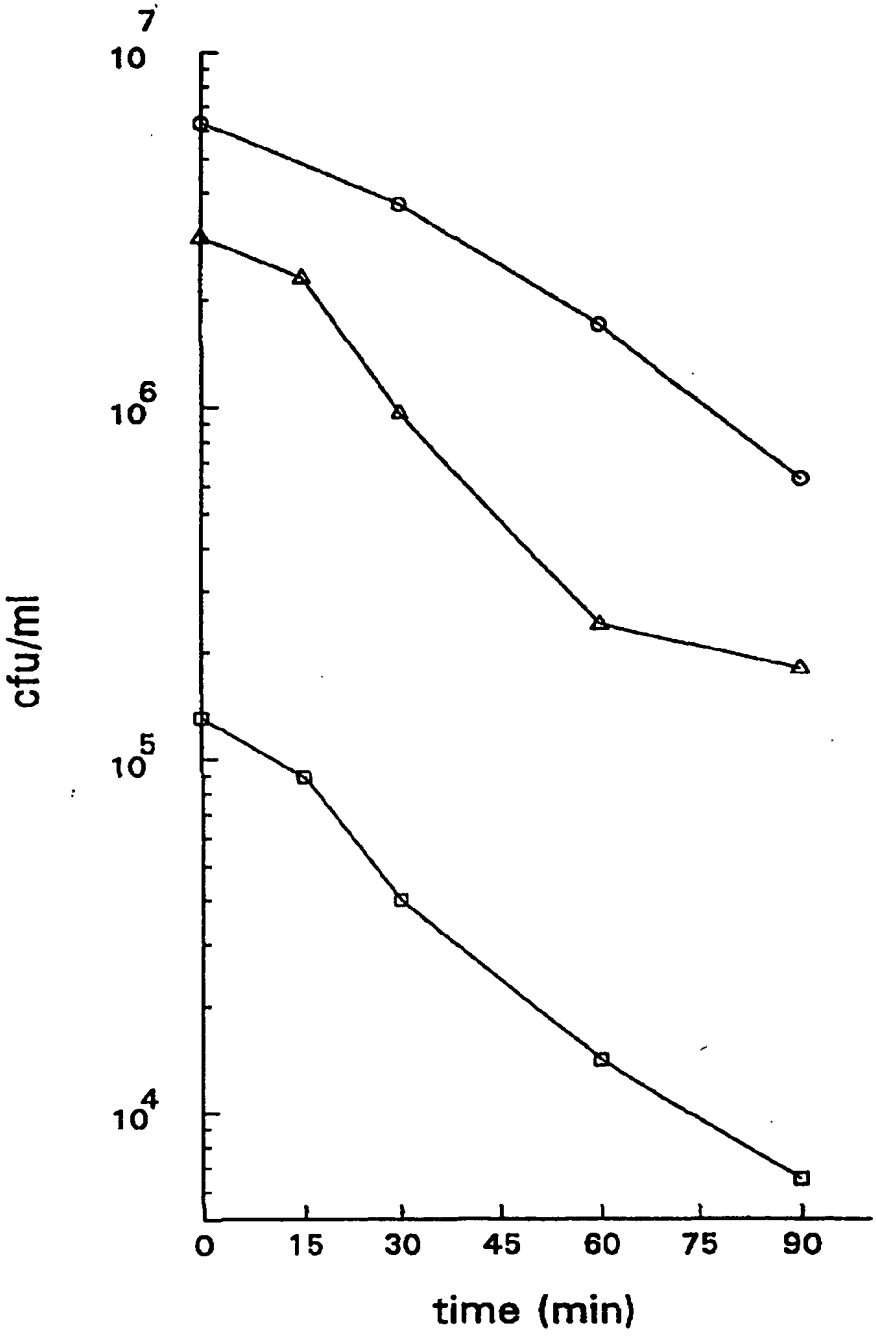

FIG. 9B

```
(1) 10508 AAGGGCACCT CTATAAACTC CCAAAATTGC GAATTTGGAG TTACGAAAGC CTTGTTAAAT --
          |||||||| ||||||| || |||||||||| |||||||||| |||||||||| ||||||||||
(2) 16985 GGGGGCACCT CTATAAATTC CCAAAATTGC GAATTTGGAG TTACGAAAGC CTTGTTAAAT --
          |||||||| ||||||| || |||||||||| |||||||||| |||||||||| ||||||||||
(3) 19803 AAGGGCACCT CTATAAACTC CCAAAATTGC GAATTTGGAG TTACGAAAGC CTTGTTAAAT --
```

```
(1)  CAA-CATTTTA AATTTTAGAA AATTAGTTTT TAGAGCTCCC  10607 (SEQ ID NO:48)
     ||| ||| ||| |||||||||| |||||||||| ||||| ||||
(2)  CAA-CATCTTA AATTTTAGAA AATTAGTTTT TAGAGGTCCC  17084 (SEQ ID NO:49)
     ||| ||| ||| |||||||||| |||||||||| ||||||||||
(3)  CAAACATTTTA AATTTTAGAA AATTAGTTTT TAGAGGTCCC  19903 (SEQ ID NO:50)
```

FIG. 10

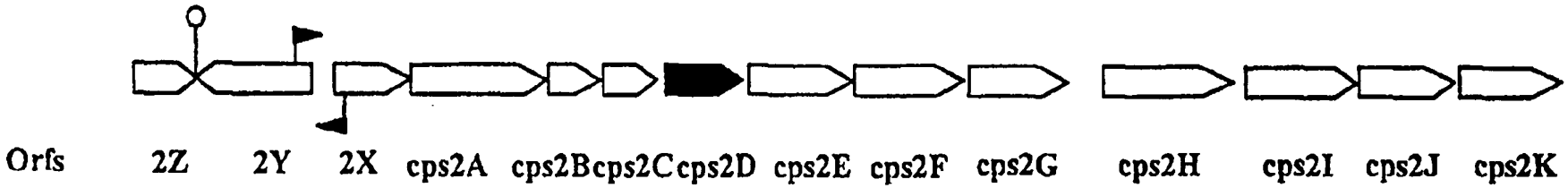

FIG. 11A

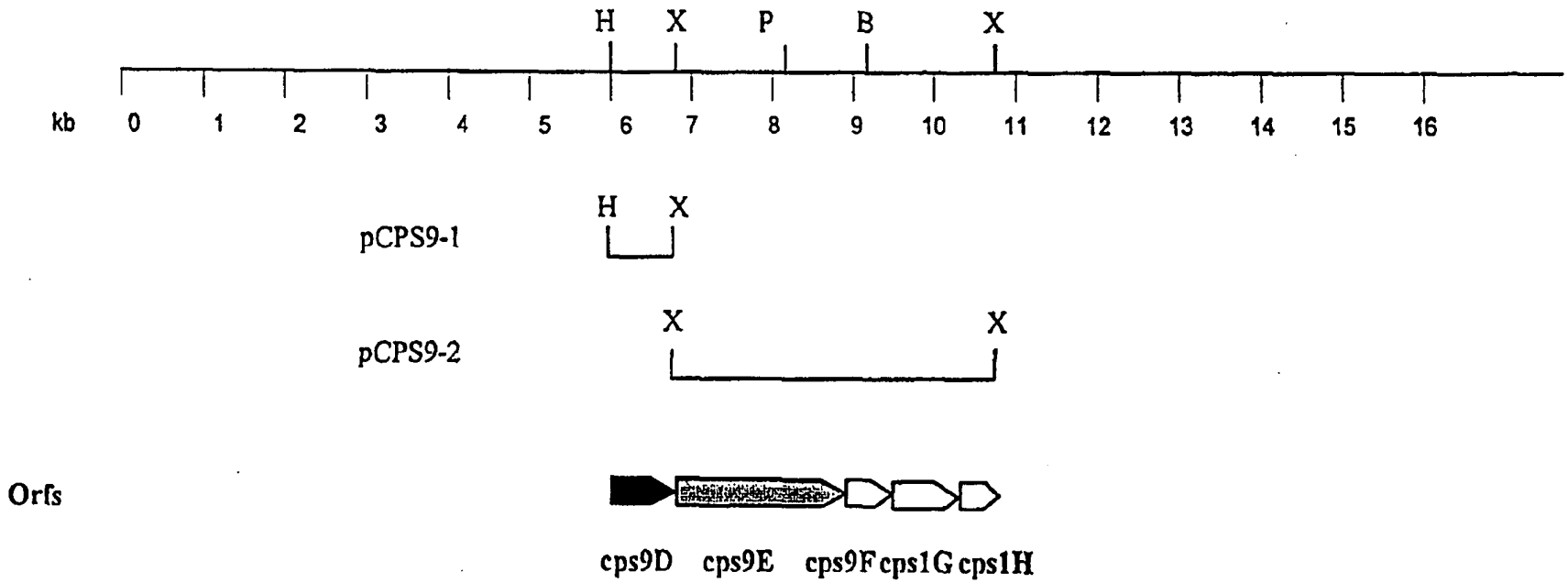

FIG. 11B

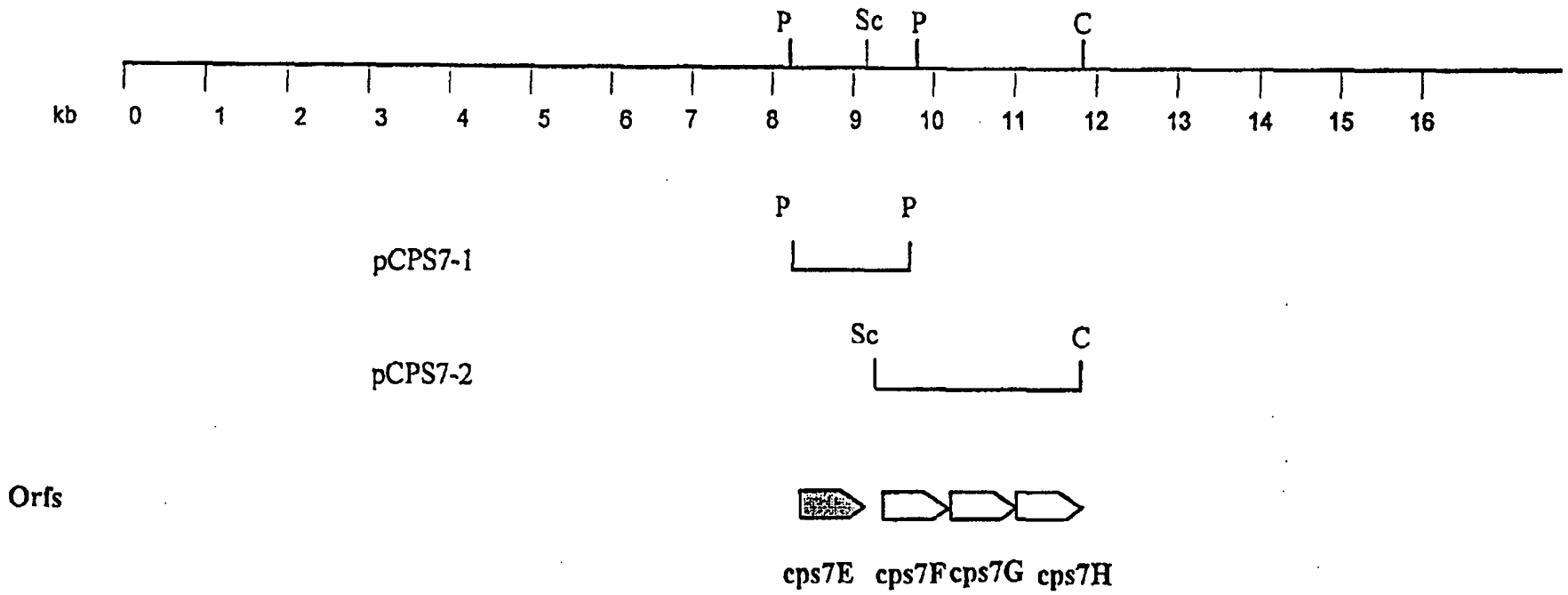
P
Sc
P
C
kb
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
P
P
pCPS7-1
Sc
C
pCPS7-2
Orfs
cps7E
cps7F
cps7G
cps7H

FIG. 11C

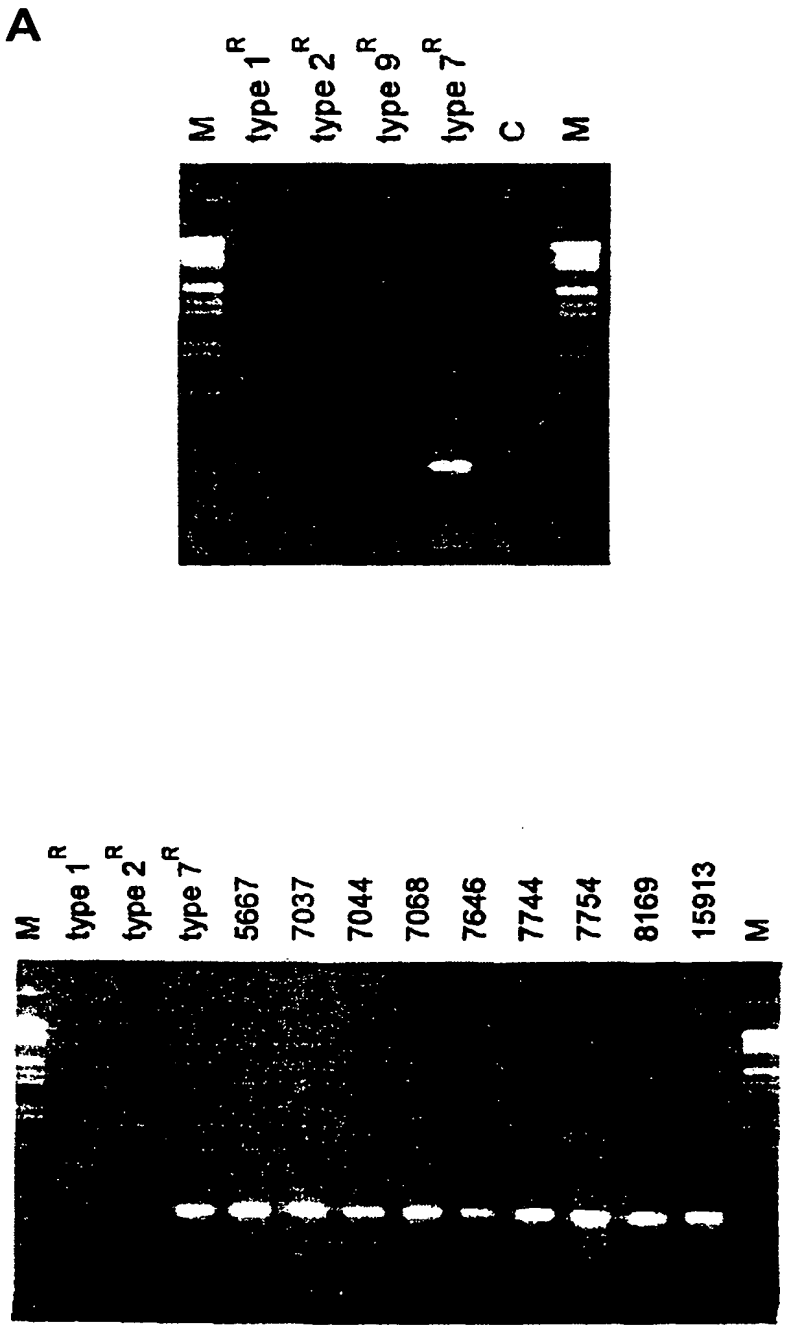
A
M
type 1R
type 2R
type 9R
type 7R
C
M
B
M
type 1R
type 2R
type 7R
5667
7037
7044
7068
7646
7744
7754
8169
15913
M

FIG. 12